BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work: Improvements of Roads and Drain at yelahanka new town 5th phase main and cross roads in chowdeshwari ward no-02, Yelahanka sub Division

JOB NUMBER.: 1507 Est. Amount = 102.00 Lakhs

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
1	KSRRB 200-8. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications.								
	KPWD S.R 2018-19 lt. No. 18.11 Pg.No. 138								
	Yelahanka New town 5th phase	sqm							
	Ch:00-230 2nd Cross Road		2	165.00	0.75		247.50		
	Ch:00-190 2nd Main Road		2	135.00	0.75		202.50		
	Ch:00-280 Connecting Road		2	200.00	0.75		300.00		
						Total Qty	750.00	10.60	7,950.00
2	Removing and resetting of footpath slab								
	KPWD S.R 2018-19 lt. No. 37.56 Pg No. 270								
	Existing Cover slab	Sqm							
	Yelahanka New town 5th phase								
	Ch:00-230 2nd Cross Road		2	167.00	0.90		300.60		
	Ch:00-190 2nd Main Road		2	135.00	0.90		243.00		
	Ch:00-280 Connecting Road		1	200.00	0.90		180.00		
						Total Qty	723.60	208.82	1,51,102.15
3	Removing and resetting of kerb stones								
	KPWD S.R 2018-19 lt. No. 37.57 Pg.No. 270								
	Exisisting Kerb	M							
	Yelahanka New town 5th phase								
	Ch:00-230 2nd Cross Road		2	161.00			322.00		
	Ch:00-190 2nd Main Road		2	133.00			266.00		
	Ch:00-280 Connecting Road		1	194.00			194.00		
						Total Qty	782.00	104.94	82,063.08
4	KSRRB300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications.								
	KPWD S.R 2018-19 lt. No. 19.10 Pg.No. 143								
	Desilting of drain	Cum							
	Yelahanka New town 5th phase								
	Ch:00-230 1st Cross Road		1	230.00	0.45	0.45	46.58		
	Ch:00-230 2nd Cross Road		2	230.00	0.60	0.45	124.20		
	New CC Drain								
	Ch:00-190 2nd main Road		2	190.00	1.00	0.90	342.00		
	Ch:00-280 Connecting Road		1	280.00	1.00	0.90	252.00		
	New Culverts								
	Cross Roads		2	7.00	1.50	1.20	25.20		
	Kerb For Dameged Portion								
	Ch:00-230 2nd Cross Road		2	69.00	0.20	0.20	5.52		
	Ch:00-190 2nd Main Road		2	57.00	0.20	0.20	4.56		
	Ch:00-280 Connecting Road		1	86.00	0.20	0.20	3.44		
						Total Qty	803.50	211.79	1,70,171.66
5	KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications.								
	KPWD S.R 2018-19 lt. No. 4.2. Pg.No. 13								
	Yelahanka New town 5th phase	Cum							
	New CC Drain								
	Ch:00-190 2nd main Road		2	190.00	1.00	0.15	57.00		
	Ch:00-280 Connecting Road		1	280.00	1.00	0.15	42.00		
	New Culverts								
	Cross Roads		2	7.00	1.50	0.15	3.15		

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
	Kerb For Dameged Portion								
	Ch:00-230 2nd Cross Road		2	69.00	0.20	0.10	2.76		
	Ch:00-190 2nd Main Road		2	57.00	0.20	0.10	2.28		
	Ch:00-280 Connecting Road		1	86.00	0.20	0.10	1.72		
						Total Qty	**108.91**	**5505.64**	**5,99,619.25**
6	KSRRB M2200-6. Providing TMT Bars Fe 500 steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification.								
	KPWD S.R 2018-19	It. No.	28.8.2	Pg.No.	229				
	For Drain								
	For CC Drain (60 Kg/Cum)	Tonne	1	13.66			13.66		
	For Culvert (90 Kg/Cum)		1	0.99			0.99		
						Total Qty	**14.65**	**72326.98**	**10,59,590.26**
7	Providing and laying plain/reinforced cement concrete for side drains Wall & bottom thickness 15cm using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500,1700, 2200 including cost of materials, labour, HOM complete as per specifications.								
	KPWD S.R 2018-19	It. No.	37 59.2	Pg.No.	271				
	New CC Drain								
	Bottom Slab								
	Ch:00-190 2nd main Road		2	1	190.00	0.90	0.15	51.30	
	Ch:00-280 Connecting Road		1	1	280.00	0.90	0.15	37.80	
	Side Wall								
	Ch:00-190 2nd main Road	Cum	2	2	190.00	0.15	0.70	79.80	
	Ch:00-280 Connecting Road		1	2	280.00	0.15	0.70	58.80	
	New Culvert								
	Bottom Slab		2	1	7.00	1.50	0.25	5.25	
	Side Wall		2	2	7.00	0.23	0.90	5.80	
						Total Qty	**238.75**	**7070.20**	**16,88,010.25**
8	Supplying and fixing precast reinforced concrete slab 10 cm thick of mix M20 using 20mm and downsize graded granite metal using reinforcement 10mm dia steel at 150mm C/c both ways cost, transportation, hire charges of machinery, machine cutting the vertical face to get plain even surface etc., complete with all leads and lift conveyance charges, labour charges inclusive of cost of cost of all materials(data Rate enclosed)								
	Approved Data Rate								
	New CC Drain								
	Ch:00-190 2nd main Road	Sqm	2		55.00	0.90		99.00	
	Ch:00-280 Connecting Road		1		81.00	0.90		72.90	
	Cover slab for dameged Portion								
	Ch:00-230 2nd Cross Road		2		68.00	0.90		122.40	
						Total Qty	**294.30**	**2337.00**	**6,87,779.10**
9	Providing and laying Pre Cast Drain Cover slabs of 250mm thick of mix M20 using graded granite jelly 20mm down size with steel reinforcement, including from work, lift charges, curing and concrete finished surfaces on both side etc. complete and as per drawing and direction of Engineer-in-charge of work (data Rate enclosed)								
	Approved Data Rate								
	New Culverts								
	Cross Roads	Sqm	2		7.00	1.50		21.00	
						Total Qty	**21.00**	**5418.00**	**1,13,778.00**
10	Providing and fixing Pre cast solid concrete kerb stones of size 450 x 200 x 400 mm made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete.								
	KPWD S.R 2018-19	It. No.	5.29.1	Pg No.	27				
	New Kerb for Damaged Portion (mts/kerb length=no's of kerb)								
	Ch:00-230 2nd Cross Road	Nos	2		153.00			306.00	
	Ch:00-190 2nd Main Road		2		127.00			254.00	
	Ch:00-280 Connecting Road		1		191.00			191.00	
						Total Qty	**751.00**	**477.00**	**3,58,227.00**
11	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8								

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
	KPWD S.R 2018-19	It. No. 24.1.		Pg.No. 180					
	Painting for Kerb								
	Ch:00-230 2nd Cross Road	Sqm	2	230.00		0.50	230.00		
	Ch:00-190 2nd Main Road		2	190.00		0.50	190.00		
	Ch:00-280 Connecting Road		1	280.00		0.50	140.00		
						Total Qty	560.00	84.80	47,488.00
12	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision								
	KPWD S.R 2018-19	It. No. 21.6		Pg.No. 158					
	Prime Coat For Profile Correction	Sqm							
	Consider 15% in total Road Area		1	1099.20			1099.20		
						Total Qty	1099.20	33.92	37,284.86
13	KSRRB 500-2. Cleaning the existing black topped surface with Sqm brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications. Clause 501 of MORTH V revision								
	KPWD S.R 2018-19	It. No. 21.20		Pg.No. 158					
	Cleaning								
	Yelahanka New town 5th phase								
	Ch:00-230 1st Cross Road	Sqm	1	230.00	7.00		1610.00		
	Ch:00-70 2nd Cross Road		1	70.00	8.80		616.00		
	Ch:70-230		1	160.00	8.50		1360.00		
	Ch:00-190 2nd main Road		1	190.00	6.80		1292.00		
	Ch:00-70 Connecting Road		1	70.00	8.00		560.00		
	Ch:70-280		1	210.00	6.00		1260.00		
	Approach Roads		7	10.00	9.00		630.00		
						Total Qty	7328.00	5.30	38,838.40
14	KSRRB M500-17. Providing and laying dense graded bituminous macadam using 120 TPH capacity Asphalt batch mix plant with sensor paver Gr-I I (50 mm to 75 mm) with 4.5 % VG-30 Bitumen crushed aggregates of specified grading; premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and ialignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision								
	KPWD S.R 2018-19	It. No. 21.17.2		Pg.No. 160					
	DBM For Profile Correction	Cum							
	Consider 15% in total Road Area		1	1099.20		0.05	54.96		
						Total Qty	54.96	7620.34	4,18,813.89
15	KSRRB M500-10. Providing and applying tack coat using 80/100 grade Sqm bitumen(VGIO) in boiler fitted with spray set distributor at the rate of 0.25 kg per sqm on the existing prepared bituminous surface (primed surface) cleaned with mechanical broom, complete as per specifications. Clause 503 of MORTH V revision								
	KPWD S.R 2018-19	It. No. 21.7.		Pg.No. 158					
	BC Road								
	Yelahanka New town 5th phase								
	Ch:00-230 1st Cross Road	Sqm	1	230.00	7.00		1610.00		
	Ch:00-70 2nd Cross Road		1	70.00	8.80		616.00		
	Ch:70-230		1	160.00	8.50		1360.00		
	Ch:00-190 2nd main Road		1	190.00	6.80		1292.00		
	Ch:00-70 Connecting Road		1	70.00	8.00		560.00		
	Ch:70-280		1	210.00	6.00		1260.00		
	Approach Roads		7	10.00	9.00		630.00		
						Total Qty	7328.00	12.72	93,212.16
16	Providing and laying bituminous concrete 40mm thick with hot mix plant, using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminous binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.								
	KPWD S.R 2018-19	It. No. 21.78.12		Pg.No. 171					
	BC Road								
	Yelahanka New town 5th phase								

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate in Rs.	Amount in Rs.
	Ch:00-230 1st Cross Road	Cum	1	230.00	7.00	0.04	64.40		
	Ch:00-70 2nd Cross Road		1	70.00	8.80	0.04	24.64		
	Ch:70-230		1	160.00	8.50	0.04	54.40		
	Ch:00-190 2nd main Road		1	190.00	6.80	0.04	51.68		
	Ch:00-70 Connecting Road		1	70.00	8.00	0.04	22.40		
	Ch:70-280		1	210.00	6.00	0.04	50.40		
	Approach Roads		7	10.00	9.00	0.04	25.20		
						Total Qty	293.12	8699.42	25,49,973.99
17	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803								
	KPWD S.R 2018-19	It. No.		24.15		Pg No.	182		
	Edge lane	Sqm							
	Road Both Side								
	Yelahanka New town 5th phase								
	Ch:00-230 1st Cross Road		1	2	230.00	0.15	69.00		
	Ch:00-70 2nd Cross Road		1	2	70.00	0.15	21.00		
	Ch:70-230		1	2	160.00	0.15	48.00		
	Ch:00-190 2nd main Road		1	2	190.00	0.15	57.00		
	Ch:00-70 Connecting Road		1	2	70.00	0.15	21.00		
	Ch:70-280		1	2	210.00	0.15	63.00		
	Road Centre								
	Yelahanka New town 5th phase								
	Ch:00-230 1st Cross Road		1	1	115.00	0.10	11.50		
	Ch:00-70 2nd Cross Road		1	1	35.00	0.10	3.50		
	Ch:70-230		1	1	80.00	0.10	8.00		
	Ch:00-190 2nd main Road		1	1	95.00	0.10	9.50		
	Ch:00-70 Connecting Road		1	1	35.00	0.10	3.50		
	Ch:70-280		1	1	105.00	0.10	10.50		
						Total Qty	325.50	454.74	1,48,017.87
18	KSRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 - DO III Dt 11.06.1997 The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer.								
	KPWD S.R 2018-19	It. No.		24.41		Pg No.	187		
	Road Both Side	Nos							
	Yelahanka New town 5th phase								
	Ch:00-230 1st Cross Road		46	2			92.00		
	Ch:00-70 2nd Cross Road		14	2			28.00		
	Ch:70-230		32	2			64.00		
	Ch:00-190 2nd main Road		38	2			76.00		
	Ch:00-70 Connecting Road		14	2			28.00		
	Ch:70-280		42	2			84.00		
	Road Centre								
	Yelahanka New town 5th phase								
	Ch:00-230 1st Cross Road		46	1			46.00		
	Ch:00-70 2nd Cross Road		14	1			14.00		
	Ch:70-230		32	1			32.00		
	Ch:00-190 2nd main Road		38	1			38.00		
	Ch:00-70 Connecting Road		14	1			14.00		
	Ch:70-280		42	1			42.00		
						Total Qty	558.00	357.22	1,99,328.76

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount in Rs.
19	Direction and Place Identification Signs with size morethan 0.9 Size Board: Providing and erecting direction and place identification retro -reflectorised sign as per IRC:67 made of high i ntensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing.								
	KPWD S.R 2018-19	It. No.		24.4.	Pg.No.	180			
	Cross Roads								
		sqm	3	0.90		0.9	2.43		
						Total Qty	2.43	7557.80	18,365.45
								Total Constrution cost	84,69,614.13
								GST 12%	10,16,353.70
								Tender Premium 6%	5,08,176.85
								Design Report,Proof Checking & PMC Amount	2,04,000.00
								Sub Total	1,01,98,144.67
								Miscellaneous & Rounding Off	1,855.33
								Grand Total	1,02,00,000.00

Certificate:-

1. The workspot was inspected and work is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike Limits.
3. The rates adopted based on the PWD SR Bangalore Circle for year 2018-19
4. The provisions made in the estimate are necessary and essential.

SRI SAI CONSULTANTS BANGALORE-90

Consultant
For Sri Sai Consultants

Assistant Engineer
Ward 02
BBMP - Bangalore

Assistant Executive Engineer
Yelahanka Sub-Division
BBMP - Bangalore

Executive Engineer
Yelahanka
BBMP - Bangalore

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work: Providing Asphalting and improvements to drains at nagenahalli and Surya vamshi layout and ISRO layout, and Nagenahalli layout main and cross roads main and cross roads and surrounding areas in chowdeshwari ward no 02, Yelahanka Sub Division

JOB NUMBER.: 1508 Est. Amount = 200.00 Lakhs

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
1	KSRRB 200-8. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications. KPWD S.R 2018-19 It. No. 18.11 Pg No 138								
	BS Drain								
	ISRO Layout								
	Ch:00-170 9th Main Road	sqm	2	136.00	0.75		204.00		
	Ch:00-202 11th main road		2	162.00	0.75		243.00		
	Ch:00-167 Connecting Road		2	134.00	0.75		201.00		
						Total Qty	648.00	10.60	6,868.80
2	KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete,-wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means: A. Lime Concrete, cement concrete grade M-10 and below. MORTH Specification No. 202 KPWD S.R 2018-19 It. No. 18.17 Pg No. 139								
	surya vamshi Layout								
	Ch:00-78 1st A Cross (Side walls)	Cum	2	2	78.00	0.15	0.45	21.06	
	Ch:00-78 1st A Cross (Bottom slab)		2	1	78.00	0.70	0.15	16.38	
	ISRO Layout								
	Ch:60-460 1st main road		2	2	160.00	0.30	0.45	86.40	
							Total Qty	123.84	481.24	59,596.76
3	KSRRB300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications. KPWD S.R 2018-19 It. No. 5.29.1 Pg No. 27								
	Desilting of drain								
	surya vamshi Layout								
	Ch:00-45 2nd Cross Road		2		35.00	0.45	0.35	11.03	
	ISRO Layout								
	Ch:00-170 9th Main Road		1		170.00	0.45	0.35	26.78	
	Ch:00-202 11th main road		2		202.00	0.45	0.35	63.63	
	Ch:00-167 Connecting Road		2		167.00	0.45	0.35	52.61	
	New CC Drain								
	surya vamshi Layout								
	Ch:00-78 1st A cross Road		2		78.00	1.00	0.90	140.40	
	Ch:00-35 1st Cross Road		2		35.00	0.85	0.90	53.55	
	Ch:00-100 KPM green Valley		1		100.00	1.00	0.90	90.00	
	ISRO Layout								
	Ch:00-170 9th Main Road		1		170.00	1.00	0.90	153.00	
	Ch:60-460 1st main road		2		400.00	1.00	0.90	720.00	
	New Kerb								
	ISRO Layout								
	Ch:60-460 1st main road		2		400.00	0.20	0.20	32.00	
	New Culvert								
	Cross roads		3		6.50	1.50	1.20	35.10	
							Total Qty	1378.09	211.79	2,91,861.87
4	KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. KPWD S.R 2018-19 It. No. 4.2. Pg No. 13								
	New CC Drain								
	surya vamshi Layout								
	Ch:00-78 1st A cross Road		2		78.00	1.00	0.15	23.40	

improvements to drains at nagenahalli and Surya vamshi layout and ISRO layout, and Nagenahalli layout main and cross roads main and cross roads and surrounding areas in chowdeshwari ward no -02, Yelahanka Sub Division

Sl. No	Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate in Rs.	Amount in Rs.
	Ch:00-35 1st Cross Road	Cum	2	35.00	0.85	0.15	8.93		
	Ch:00-100 KPM green Valley		1	100.00	1.00	0.15	15.00		
	ISRO Layout								
	Ch:00-170 9th Main Road		1	170.00	1.00	0.15	25.50		
	Ch:60-460 1st main road		2	400.00	1.00	0.15	120.00		
	New Kerb								
	Ch:60-460 1st main road		2	400.00	0.20	0.10	16.00		
	New Culvert								
	Cross roads		3	6.50	1.50	0.15	4.39		
						Total Qty	213.22	5505.64	11,73,912.56
5	KSRRB M2200-6. Providing TMT Bars Fe 500 steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200 KPWD S.R 2018-19 It. No. 28.8.2 Pg.No. 229								
	For Drain								
	For CC Drain (60 Kg/Cum)	Tonne	1	26.73			26.73		
	For Culvert (90 Kg/Cum)		1	1.38			1.38		
						Total Qty	28.11	72326.98	20,33,111.41
6	Providing and laying plain/reinforced cement concrete for side drains Wall & bottom thickness 15cm using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500,1700, 2200. including cost of materials, labour, HOM complete as per specifications. KPWD S.R 2018-19 It. No. 37.59.2 Pg.No. 271								
	New CC Drain								
	Bottom Slab								
	surya vamshi Layout								
	Ch:00-78 1st A cross Road	Cum	2	1	78.00	0.90	0.15	21.06	
	Ch:00-35 1st Cross Road		2	1	35.00	0.75	0.15	7.88	
	Ch:00-100 KPM green Valley		1	1	100.00	0.90	0.15	13.50	
	ISRO Layout								
	Ch:00-170 9th Main Road		1	1	170.00	0.90	0.15	22.95	
	Ch:60-460 1st main road		2	1	400.00	0.90	0.15	108.00	
	Side wall								
	surya vamshi Layout								
	Ch:00-78 1st A cross Road		2	2	78.00	0.15	0.70	32.76	
	Ch:00-35 1st Cross Road		2	2	35.00	0.15	0.70	14.70	
	Ch:00-100 KPM green Valley		1	2	100.00	0.15	0.70	21.00	
	ISRO Layout								
	Ch:00-170 9th Main Road		1	2	170.00	0.15	0.70	35.70	
	Ch:60-460 1st main road		2	2	400.00	0.15	0.70	168.00	
	New Culvert								
	Cross Roads		3	1	6.50	1.50	0.25	7.31	
	Cross Roads		3	2	6.50	0.23	0.90	8.07	
							Total Qty	460.94	7070.20	32,58,937.99
7	Supplying and fixing precast reinforced concrete slab 10 cm thick of mix M20 using 20mm and downsize graded granite metal using reinforcement 10mm dia steel at 150mm C/c both ways cost, transportation, hire charges of machinery, machine cutting the vertical face to get plain even surface etc., complete with all leads and lift conveyance charges, labour charges inclusive of cost of cost of all materials(data Rate enclosed) Approved Data Rate								
	CC Drain								
	surya vamshi Layout								
	Ch:00-78 1st A cross Road	Sqm	2		78.00	0.90		140.40	
	Ch:00-35 1st Cross Road		2		35.00	0.90		63.00	
	Ch:00-100 KPM green Valley		1		100.00	0.90		90.00	
	ISRO Layout								

Sl. No	Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate in Rs.	Amount in Rs.
	Ch:00-170 9th Main Road		1	167.00	0.90		150.30		
	Ch:60-460 1st main road		2	397.00	0.90		714.60		
						Total Qty	1158.30	2337.00	27,06,947.10
8	Providing and laying Pre Cast Drain Cover slabs of 250mm thick of mix M20 using graded granite jelly 20mm down size with steel reinforcement, including from work, lift charges, curing and concrete finished surfaces on both side etc. complete and as per drawing and direction of Engineer-in-charge of work (data Rate enclosed) Approved Data Rate								
	New Culvert								
	Cross roads	Sqm	3	6.50	1.50		29.25		
						Total Qty	29.25	5418.00	1,58,476.50
9	Providing and fixing Pre cast solid concrete kerb stones of size 450 x 200 x 400 mm made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. KPWD S.R 2018-19 It. No. 5.29.1 Pg.No. 27								
	New Kerb for Damaged Portion (mts/kerb length=no's of kerb)								
	Ch:60-460 1st main road	Nos	2	889.00			1778.00		
						Total Qty	1778.00	477.00	8,48,106.00
10	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 KPWD S.R 2018-19 It. No. 24.1 Pg.No. 180								
	Ch:60-460 1st main road	Sqm	2	400.00		0.50	400.00		
						Total Qty	400.00	84.80	33,920.00
11	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by mechanical means attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM complete as per specifications. MORTH I Chapter 3 KPWD S.R 2018-19 It. No. 19.56 Pg.No. 146								
	Scarifying								
	surya vamshi Layout								
	Ch:00-45 2nd Cross Road	Sqm	1	45.00	1.20		54.00		
	ISRO Layout								
	Ch:00-202 11th main road		1	202.00	1.50		303.00		
	Ch:00-190 9th main road		1	170.00	1.50		255.00		
						Total Qty	612.00	54.91	33,603.70
12	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. KPWD S.R 2018-19 It. No. 19.14 Pg.No. 143								
	Earth for Road								
	New BC Road								
	surya vamshi Layout								
	Ch:00-45 2nd Cross Road	Cum	1	45.00	5.00	0.30	67.50		
	Ch:00-35 1st Cross Road		1	35.00	5.50	0.30	57.75		
	ISRO Layout								
	Ch:00-202 11th main road		1	202.00	5.00	0.30	303.00		
	Ch:00-190 9th main road		1	170.00	5.00	0.30	255.00		
						Total Qty	683.25	57.03	38,964.38
13	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregatesof granite/trap/basalt material, mixing by mix in place method by rotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. KPWD S.R 2018-19 It. No. 20.60 Pg.No. 153								
	GSB								
	surya vamshi Layout								

Sl. No	Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate In Rs.	Amount In Rs.
	Ch:00-45 2nd Cross Road	Sqm	1	45.00	5.00	0.15	33.75		
	Ch:00-35 1st Cross Road		1	35.00	5.50	0.15	28.88		
	ISRO Layout								
	Ch:00-202 11th main road		1	202.00	5.00	0.15	151.50		
	Ch:00-190 9th main road		1	170.00	5.00	0.15	127.50		
						Total Qty	341.63	1855.00	6,33,723.65
14	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406								
	KPWD S.R 2018-19 lt. No. 20.18 Pg.No. 155								
	Wet Mix	Cum							
	surya vamshi Layout								
	Ch:00-45 2nd Cross Road		1	45.00	5.00	0.20	45.00		
	Ch:00-35 1st Cross Road		1	35.00	5.50	0.20	38.50		
	ISRO Layout								
	Ch:00-202 11th main road		1	202.00	5.00	0.20	202.00		
	Ch:00-190 9th main road		1	170.00	5.00	0.20	170.00		
						Total Qty	455.50	2001.28	9,11,583.04
15	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.MORTH I Chapter 3								
	KPWD S.R 2018-19 lt. No. 19.64 Pg.No. 147								
	Compaction	Sqm							
	surya vamshi Layout								
	Ch:00-45 2nd Cross Road		1	45.00	5.00		225.00		
	Ch:00-35 1st Cross Road		1	35.00	5.50		192.50		
	ISRO Layout								
	Ch:00-202 11th main road		1	202.00	5.00		1010.00		
	Ch:00-190 9th main road		1	170.00	5.00		850.00		
						Total Qty	2277.50	6.36	14,484.90
16	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.Clause 502 of MORTH V revision								
	KPWD S.R 2018-19 lt. No. 21.6 Pg.No. 158								
	Prime Coat	Sqm							
	surya vamshi Layout								
	Ch:00-45 2nd Cross Road		1	45.00	5.00		225.00		
	Ch:00-35 1st Cross Road		1	35.00	5.50		192.50		
	ISRO Layout								
	Ch:00-202 11th main road		1	202.00	5.00		1010.00		
	Ch:00-190 9th main road		1	170.00	5.00		850.00		
	Prime Coat For Profile Correction								
	Consider 15% in total Road Area		1	834.53			834.53		
						Total Qty	3112.03	33.92	1,05,560.06
17	KSRRB 500-2. Cleaning the existing black topped surface with Sqm brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications. Clause 501 of MORTH V revision								
	KPWD S.R 2018-19 lt. No. 21.20 Pg.No. 158								
	Cleaning	Sqm							
	ISRO Layout								
	Ch:00-60 1st Main Road		1	60.00	6.75		405.00		
	Ch:60-460 1st Main road		1	400.00	9.00		3600.00		
	Ch:00-167 Connecting Road		1	167.00	5.50		918.50		
	Approach Roads		8	10.00	8.00		640.00		
						Total Qty	5563.50	5.30	29,486.55

Sl. No	Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate in Rs.	Amount in Rs.
18	KSRRB M500-17. Providing and laying dense graded bituminous macadam using 120 TPH capacity Asphalt batch mix plant with sensor paver Gr-I I (50 mm to 75 mm) with 4.5 % VG-30 Bitumen crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and ialignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision								
	KPWD S.R 2018-19	It. No.	21.17.2	Pg No.	160				
	New BC Road								
	ISRO Layout								
	Ch:00-202 11th main road	Cum	1		202.00	5.00	0.05	50.50	
	Ch:00-190 9th main road		1		170.00	5.00	0.05	42.50	
	surya vamshi Layout								
	Ch:00-45 2nd Cross Road		1		45.00	5.00	0.05	11.25	
	Ch:00-35 1st Cross Road		1		35.00	5.50	0.05	9.63	
	DBM For Profile Correction								
	Consider 15% in total Road Area		1		834.53		0.05	41.73	
							Total Qty	155.60	7620.34	11,85,724.90
19	KSRRB M500-10. Providing and applying tack coat using 80/100 grade Sqm bitumen(VGIO) in boiler fitted with spray set distributor at the rate of 0.25 kg per sqm on the existing prepared bituminous surface (primed surface) cleaned with mechanical broom, complete as per specifications. Clause 503 of MORTH V revision								
	KPWD S.R 2018-19	It. No.	21.7.	Pg.No.	158				
	Tack Coat For Road								
	ISRO Layout								
	Ch:00-60 1st Main Road	Sqm	1		60.00	6.75		405.00	
	Ch:60-460 1st Main road		1		400.00	9.00		3600.00	
	Ch:00-167 Connecting Road		1		167.00	5.50		918.50	
	New BC Road								
	ISRO Layout								
	Ch:00-202 11th main road		1		202.00	5.00		1010.00	
	Ch:00-190 9th main road		1		170.00	5.00		850.00	
	surya vamshi Layout								
	Ch:00-45 2nd Cross Road		1		45.00	5.00		225.00	
	Ch:00-35 1st Cross Road		1		35.00	5.50		192.50	
	Approach Roads		8		10.00	8.00		640.00	
							Total Qty	7841.00	12.72	99,737.52
20	Providing and laying bituminous concrete 40mm thick with hot mix plant, using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminous binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.								
	KPWD S.R 2018-19	It. No.	21.78.12.	Pg.No.	162				
	ISRO Layout								
	Ch:00-60 1st Main Road	Cum	1		60.00	6.75	0.04	16.20	
	Ch:60-460 1st Main road		1		400.00	9.00	0.04	144.00	
	Ch:00-167 Connecting Road		1		167.00	5.50	0.04	36.74	
	New BC Road								
	ISRO Layout								
	Ch:00-202 11th main road		1		202.00	5.00	0.03	30.30	
	Ch:00-190 9th main road		1		170.00	5.00	0.03	25.50	
	surya vamshi Layout								
	Ch:00-45 2nd Cross Road		1		45.00	5.00	0.03	6.75	
	Ch:00-35 1st Cross Road		1		35.00	5.50	0.03	5.78	
	Approach Roads		8		10.00	8.00	0.04	25.60	
							Total Qty	290.87	8699.42	25,30,400.30

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
21	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Provlding and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803								
	KPWD S.R 2018-19								
	Edge lane	lt. No.		24.15		Pg.No.	182		
	Road Both Side								
	ISRO Layout								
	Ch:00-60 1st Main Road	Sqm	1	2	60.00	0.15		18.00	
	Ch:60-460 1st Main road		1	2	400.00	0.15		120.00	
	Ch:00-167 Connecting Road		1	2	167.00	0.15		50.10	
	Ch:00-202 11th main road		1	2	202.00	0.15		60.60	
	Ch:00-190 9th main road		1	2	170.00	0.15		51.00	
	surya vamshi Layout								
	Ch:00-45 2nd Cross Road		1	2	45.00	0.15		13.50	
	Ch:00-35 1st Cross Road		1	2	35.00	0.15		10.50	
	Road Centre								
	ISRO Layout								
	Ch:00-60 1st Main Road		1	1	30.00	0.10		3.00	
	Ch:60-460 1st Main road		1	1	200.00	0.10		20.00	
	Ch:00-167 Connecting Road		1	1	83.50	0.10		8.35	
	Ch:00-202 11th main road		1	1	101.00	0.10		10.10	
	Ch:00-190 9th main road		1	1	85.00	0.10		8.50	
	surya vamshi Layout								
	Ch:00-45 2nd Cross Road		1	1	22.50	0.10		2.25	
	Ch:00-35 1st Cross Road		1	1	17.50	0.10		1.75	
							Total Qty	377.65	454.74	1,71,732.56
22	KSRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 - DO III Dt 11.06.1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer.								
	KPWD S.R 2018-19								
		lt. No.		24.41		Pg.No.	187		
	Road Both Side								
	ISRO Layout								
	Ch:00-60 1st Main Road	Nos	12	2				24.00	
	Ch:60-460 1st Main road		80	2				160.00	
	Ch:00-167 Connecting Road		33	2				66.00	
	Ch:00-202 11th main road		40	2				80.00	
	Ch:00-190 9th main road		34	2				68.00	
	surya vamshi Layout		9	2				18.00	
	Ch:00-45 2nd Cross Road		7	2				14.00	
	Ch:00-35 1st Cross Road		12	1				12.00	
	Road Centre		80	1				80.00	
	ISRO Layout		33	1				33.00	
	Ch:00-60 1st Main Road		40	1				40.00	
	Ch:60-460 1st Main road		34	1				34.00	
	Ch:00-167 Connecting Road		9	1				9.00	
	Ch:00-202 11th main road		7	1				7.00	
	Ch:00-190 9th main road						Total Qty	645.00	357.22	2,30,406.90
	surya vamshi Layout								
	Ch:00-45 2nd Cross Road								
	Ch:00-35 1st Cross Road								

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate in Rs.	Amount in Rs.
23	Direction and Place Identification Signs with size morethan 0.9 Size Board: Providing and erecting direction and place identification retro -reflectorised sign as per IRC:67 made of high i ntensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing. KPWD S.R 2018-19 It. No. 24.4. Pg.No. 180 **Cross Roads**								
		sqm	8		0.90		0.9	6.48		
							Total Qty	6.48	7557.80	48,974.54
									Total Construtlon cost	1,66,06,121.99
									GST 12%	19,92,734.64
									Tender Premium 6%	9,96,367.32
									Design Report,Proof Checking & PMC Amount	4,00,000.00
									Sub Total	1,99,95,223.95
									Miscellaneous & Rounding Off	4,776.05
									Grand Total	2,00,00,000.00

Certificate:-

1. The workspot was inspected and work is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike Limits.
3. The rates adopted based on the PWD SR Bangalore Circle for year 2018-19
4. The provisions made in the estimate are necessary and essential.

SRI SAI CONSULTANTS BANGALORE-90

Consultant
For Sri Sai Consultants

Assistant Engineer
Ward 02
BBMP - Bangalore

Assistant Executive Engineer
Yelahanka Sub-Division
BBMP - Bangalore

Executive Engineer
Yelahanka
BBMP - Bangalore

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work: Improvements to Roads and Drains at Puttenahalli Vinayaka Layout main and cross roads and Susheelamma layout, ISAQ layout, main and cross roads and surrounding areas in chowdeshwari ward no-02, Yalahanka sub Division

JOB NUMBER.: GO.No-1509 Est. Amount = 200.00 Lakhs

Sl. No	Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate In Rs.	Amount In Rs.
1	KSRRB 200-8. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications. MORTH / Chapter 2								
	KPWD S.R 2018-19 It. No. 18.11. Pg.No. 138								
	BC Road								
	ISAQ layout								
	Ch:00-363 1st Main Road	Sqm	2	363.00	0.75		544.50		
	Ch:00-30 4th Cross Road		2	30.00	0.75		45.00		
	Ch:00-30 5th Cross Road		2	30.00	0.75		45.00		
	Ch:00-38 6th Cross Road		2	38.00	0.75		57.00		
	Shushilamma layout								
	Ch:00-335 1st Main Road		2	335.00	0.75		502.50		
	Ch:00-45 3rd Cross Road		2	45.00	0.75		67.50		
	Ch:00-40 4th Cross Road		2	40.00	0.75		60.00		
	Ch:00-48 5th Cross Road		2	48.00	0.75		72.00		
	Ch:00-45 6th Cross Road		2	45.00	0.75		67.50		
	Ch:00-45 7th Corss Road		2	45.00	0.75		67.50		
						Total Qty	1528.50	10.60	16,202.10
2	Removing and resetting of footpath slab								
	KPWD S.R 2018-19 It. No. 37.56. Pg.No. 270								
	ISAQ layout								
	Ch:00-363 1st Main Road	sqm	1	218.00	0.90		196.20		
	Shushilamma layout								
	Ch:00-335 1st Main Road		2	200.00	0.90		360.00		
						Total Qty	556.20	208.82	1,16,145.68
3	Removing and resetting of kerb stones								
	KPWD S.R 2018-19 It. No. 37.57. Pg.No. 270								
	ISAQ layout								
	Ch:00-363 1st Main Road	M	1	218.00			218.00		
	Shushilamma layout								
	Ch:00-335 1st Main Road		2	200.00			400.00		
						Total Qty	618.00	104.94	64,852.92
4	KSRRB300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications. Including loading, Unloading and 5 Kms Lead for Disposal								
	KPWD S.R 2018-19 It. No. 19.10 Pg.No. 143								
	Desilting of drain								
	ISAQ layout								
	Ch:00-363 1st Main Road	Cum	1	363.00	0.60	0.40	87.12		
	New CC Drain								
	ISAQ layout								
	Ch:00-363 1st Main Road		1	363.00	1.00	0.90	326.70		
	Ch:00-30 4th Cross Road		1	30.00	1.00	0.90	27.00		
	Ch:00-30 5th Cross Road		2	30.00	1.00	0.90	54.00		
	Ch:00-38 6th Cross Road		1	38.00	1.00	0.90	34.20		
	Shushilamma layout								
	Ch:00-335 1st Main Road		2	335.00	1.00	0.90	603.00		
	Ch:00-45 3rd Cross Road		2	45.00	1.00	0.90	81.00		
	Ch:00-40 4th Cross Road		2	40.00	1.00	0.90	72.00		
	Ch:00-48 5th Cross Road		2	48.00	1.00	0.90	86.40		
	New Culverts								
	Cross Roads		7	6.00	1.50	1.20	75.60		

Sl. No	Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate in Rs.	Amount in Rs.
	Ch:00-30 4th Cross Road	Cum	1 1	30.00	0.90	0.15	4.05		
	Ch:00-30 5th Cross Road		2 1	30.00	0.90	0.15	8.10		
	Ch:00-38 6th Cross Road		1 1	38.00	0.90	0.15	5.13		
	Shushilamma layout								
	Ch:00-335 1st Main Road		2 1	335.00	0.90	0.15	90.45		
	Ch:00-45 3rd Cross Road		2 1	45.00	0.90	0.15	12.15		
	Ch:00-40 4th Cross Road		2 1	40.00	0.90	0.15	10.80		
	Ch:00-48 5th Cross Road		2 1	48.00	0.90	0.15	12.96		
	Side Wall								
	ISAQ layout								
	Ch:00-363 1st Main Road		1 2	363.00	0.15	0.70	76.23		
	Ch:00-30 4th Cross Road		1 2	30.00	0.15	0.70	6.30		
	Ch:00-30 5th Cross Road		2 2	30.00	0.15	0.70	12.60		
	Ch:00-38 6th Cross Road		1 2	38.00	0.15	0.70	7.98		
	Shushilamma layout								
	Ch:00-335 1st Main Road		2 2	335.00	0.15	0.70	140.70		
	Ch:00-45 3rd Cross Road		2 2	45.00	0.15	0.70	18.90		
	Ch:00-40 4th Cross Road		2 2	40.00	0.15	0.70	16.80		
	Ch:00-48 5th Cross Road		2 2	48.00	0.15	0.70	20.16		
	New Culverts								
	Bottom Slab		7 1	6.00	1.50	0.25	15.75		
	Side Wall		7 2	6.00	0.23	0.90	17.39		
						Total Qty	525.46	7070.20	37,15,107.29
8	Supplying and fixing precast reinforced concrete slab 10 cm thick of mix M20 using 20mm and downsize graded granite metal using reinforcement 10mm dia steel at 150mm C/c both ways cost, transportation, hire charges of machinery, machine cutting the vertical face to get plain even surface etc., complete with all leads and lift conveyance charges, labour charges inclusive of cost of cost of all materials(data Rate enclosed)								
	New CC Drain								
	ISAQ layout	Sqm							
	Ch:00-363 1st Main Road		1	363.00	0.90		326.70		
	Ch:00-30 4th Cross Road		1	30.00	0.90		27.00		
	Ch:00-30 5th Cross Road		2	30.00	0.90		54.00		
	Ch:00-38 6th Cross Road		1	38.00	0.90		34.20		
	Shushilamma layout								
	Ch:00-335 1st Main Road		2	335.00	0.90		603.00		
	Ch:00-45 3rd Cross Road		2	45.00	0.90		81.00		
	Ch:00-40 4th Cross Road		2	40.00	0.90		72.00		
	Ch:00-48 5th Cross Road		2	48.00	0.90		86.40		
	Cover Slab For Dameged Portion								
	ISAQ layout								
	Ch:00-363 1st Main Road		1	145.00	0.90		130.50		
	Shushilamma layout								
	Ch:00-335 1st Main Road		2	135.00	0.90		243.00		
						Total Qty	1657.80	2337.00	38,74,278.60
9	Providing and laying Pre Cast Drain Cover slabs of 250mm thick of mix M20 using graded granite jelly 20mm down size with steel reinforcement, including from work, lift charges, curing and concrete finished surfaces on both side etc. complete and as per drawing and direction of Engineer-in-charge of work (data Rate enclosed)								
	New Culverts								
	Cross roads	Sqm	7	6.00	1.50		63.00		
						Total Qty	63.00	5418.00	3,41,334.00
10	Providing and fixing Pre cast solid concrete kerb stones of size 450 x 200 x 400 mm made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete.								
	KPWD S.R 2018-19	It. No.	5.29.1.			Pg.No.	27		
	New Kerb (mts/kerb length=no's of kerb)								
	ISAQ layout								
	Ch:00-363 1st Main Road		1	807.00			807.00		

Sl. No	Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate In Rs.	Amount In Rs.
	Kerb For Dameged Portion	Nos							
	ISAQ layout								
	Ch:00-363 1st Main Road		1	322.00			322.00		
	Shushilamma layout								
	Ch:00-335 1st Main Road		2	300.00			600.00		
						Total Qty	1729.00	477.00	8,24,733.00
11	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8								
	KPWD S.R 2018-19								
	Paint for Kerb	It. No.	24.1		Pg.No.	180			
	ISAQ layout	Sqm							
	Ch:00-363 1st Main Road		2	363.00		0.50	363.00		
	Shushilamma layout								
	Ch:00-335 1st Main Road		2	335.00		0.50	335.00		
						Total Qty	698.00	84.80	59,190.40
12	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 and 4Kms Lead for Disposal								
	KPWD S.R 2018-19								
	Earth for Road	It. No.	19.14		Pg.No.	143			
	New BC Road								
	ISAQ layout								
	Ch:00-30 4th Cross Road	Cum	1	30.00	4.50	0.30	40.50		
	Ch:00-30 5th Cross Road		1	30.00	4.50	0.30	40.50		
	Ch:00-38 6th Cross Road		1	38.00	4.50	0.30	51.30		
	Shushilamma layout								
	Ch:00-45 3rd Cross Road		1	45.00	4.50	0.30	60.75		
	Ch:00-40 4th Cross Road		1	40.00	4.30	0.30	51.60		
	Ch:00-48 5th Cross Road		1	48.00	4.40	0.30	63.36		
	Ch:00-45 6th Cross Road		1	45.00	4.30	0.30	58.05		
	Ch:00-45 7th Corss Road		1	45.00	4.30	0.30	58.05		
						Total Qty	424.11	57.03	24,186.15
13	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregatesof granite/trap/basalt material, mixing by mix in place method by rotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications.Clause 401 of MORTH V Revision.								
	KPWD S.R 2018-19								
	GSB	It. No.	20.60		Pg.No.	153			
	New BC Road								
	ISAQ layout								
	Ch:00-30 4th Cross Road	Sqm	1	30.00	4.50	0.15	20.25		
	Ch:00-30 5th Cross Road		1	30.00	4.50	0.15	20.25		
	Ch:00-38 6th Cross Road		1	38.00	4.50	0.15	25.65		
	Shushilamma layout								
	Ch:00-45 3rd Cross Road		1	45.00	4.50	0.15	30.38		
	Ch:00-40 4th Cross Road		1	40.00	4.30	0.15	25.80		
	Ch:00-48 5th Cross Road		1	48.00	4.40	0.15	31.68		
	Ch:00-45 6th Cross Road		1	45.00	4.30	0.15	29.03		
	Ch:00-45 7th Corss Road		1	45.00	4.30	0.15	29.03		
						Total Qty	212.06	1855.00	3,93,371.30

No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate in Rs.	Amount in Rs.
14	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406								
	KPWD S.R 2018-19								
	Wet Mix								
	New BC Road								
	ISAQ layout								
	Ch:00-30 4th Cross Road	Cum	1	30.00	4.50	0.20	27.00		
	Ch:00-30 5th Cross Road		1	30.00	4.50	0.20	27.00		
	Ch:00-38 6th Cross Road		1	38.00	4.50	0.20	34.20		
	Shushilamma layout								
	Ch:00-45 3rd Cross Road		1	45.00	4.50	0.20	40.50		
	Ch:00-40 4th Cross Road		1	40.00	4.30	0.20	34.40		
	Ch:00-48 5th Cross Road		1	48.00	4.40	0.20	42.24		
	Ch:00-45 6th Cross Road		1	45.00	4.30	0.20	38.70		
	Ch:00-45 7th Corss Road		1	45.00	4.30	0.20	38.70		
						Total Qty	282.74	2001.28	5,65,841.91
	It. No. 20.18 Pg.No. 155								
15	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.MORTH I Chapter 3								
	KPWD S.R 2018-19								
	Compaction								
	New BC Road								
	ISAQ layout								
	Ch:00-30 4th Cross Road	Sqm	1	30.00	4.50		135.00		
	Ch:00-30 5th Cross Road		1	30.00	4.50		135.00		
	Ch:00-38 6th Cross Road		1	38.00	4.50		171.00		
	Shushilamma layout								
	Ch:00-45 3rd Cross Road		1	45.00	4.50		202.50		
	Ch:00-40 4th Cross Road		1	40.00	4.30		172.00		
	Ch:00-48 5th Cross Road		1	48.00	4.40		211.20		
	Ch:00-45 6th Cross Road		1	45.00	4.30		193.50		
	Ch:00-45 7th Corss Road		1	45.00	4.30		193.50		
						Total Qty	1413.70	6.36	8,991.13
	It. No. 19.64 Pg.No. 147								
16	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.Clause 502 of MORTH V revision								
	KPWD S.R 2018-19								
	Prime Coat								
	New BC Road								
	ISAQ layout								
	Ch:00-30 4th Cross Road	Sqm	1	30.00	4.50		135.00		
	Ch:00-30 5th Cross Road		1	30.00	4.50		135.00		
	Ch:00-38 6th Cross Road		1	38.00	4.50		171.00		
	Shushilamma layout								
	Ch:00-45 3rd Cross Road		1	45.00	4.50		202.50		
	Ch:00-40 4th Cross Road		1	40.00	4.30		172.00		
	Ch:00-48 5th Cross Road		1	48.00	4.40		211.20		
	Ch:00-45 6th Cross Road		1	45.00	4.30		193.50		
	Ch:00-45 7th Corss Road		1	45.00	4.30		193.50		
	DBM for Profile Correction								
	Consider 15% in Total Area		1	3896.40			584.46		
						Total Qty	1998.16	33.92	67,777.59
	It. No. 21.6 Pg.No. 158								
17	KSRRB 500-2. Cleaning the existing black topped surface with Sqm brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications. Clause 501 of MORTH V revision								
	KPWD S.R 2018-19								
	Cleaning								
	ISAQ layout								
	Ch:00-363 1st Main Road	Cum	1	363.00	4.50		1633.50		
	Shushilamma layout								
	It. No. 21.2 Pg.No. 158								

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
	Ch:00-335 1st Main Road								
	Road Approches								
			1	335.00	4.50		1507.50		
			2	10.00	6.50		130.00		
						Total Qty	3271.00	5.30	17,336.3
18	KSRRB M500-17. Providing and laying dense graded bituminous macadam using 120 TPH capacity Asphalt batch mix plant with sensor paver Gr-I I (50 mm to 75 mm) with 4.5 % VG-30 Bitumen crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and ialignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision								
	KPWD S.R 2018-19								
	DBM For Road								
	New BC Road								
	ISAQ layout								
	Ch:00-30 4th Cross Road								
	Ch:00-30 5th Cross Road								
	Ch:00-38 6th Cross Road								
	Shushilamma layout								
	Ch:00-45 3rd Cross Road								
	Ch:00-40 4th Cross Road								
	Ch:00-48 5th Cross Road								
	Ch:00-45 6th Cross Road								
	Ch:00-45 7th Corss Road								
	DBM for Profile Correction								
	Consider 15% in Total Area								
		Cum	1	30.00	4.50	0.05	6.75		
			1	30.00	4.50	0.05	6.75		
			1	38.00	4.50	0.05	8.55		
			1	45.00	4.50	0.05	10.13		
			1	40.00	4.30	0.05	8.60		
			1	48.00	4.40	0.05	10.56		
			1	45.00	4.30	0.05	9.68		
			1	45.00	4.30	0.05	9.68		
			1	3896.40		0.05	29.22		
						Total Qty	99.91	7620.34	7,61,348.17
19	KSRRB M500-10. Providing and applying tack coat using 80/100 grade Sqm bitumen(VGIO) in boiler fitted with spray set distributor at the rate of 0.25 kg per sqm on the existing prepared bituminous surface (primed surface) cleaned with mechanical broom, complete as per specifications. Clause 503 of MORTH V revision								
	KPWD S.R 2018-19								
	Tack Coat For Road								
	ISAQ layout								
	Ch:00-363 1st Main Road								
	Ch:00-30 4th Cross Road								
	Ch:00-30 5th Cross Road								
	Ch:00-38 6th Cross Road								
	Shushilamma layout								
	Ch:00-335 1st Main Road								
	Ch:00-45 3rd Cross Road								
	Ch:00-40 4th Cross Road								
	Ch:00-48 5th Cross Road								
	Ch:00-45 6th Cross Road								
	Ch:00-45 7th Corss Road								
	Road Approches								
		Sqm	1	363.00	5.30		1923.90		
			1	30.00	4.50		135.00		
			1	30.00	4.50		135.00		
			1	38.00	4.50		171.00		
			1	335.00	5.50		1842.50		
			1	45.00	4.50		202.50		
			1	40.00	4.30		172.00		
			1	48.00	4.40		211.20		
			1	45.00	4.30		193.50		
			1	45.00	4.30		193.50		
			2	10.00	6.50		130.00		
						Total Qty	5310.10	12.72	67,544.47
20	Providing and laying bituminous concrete 40mm thick with hot mix plant, using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminous binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.								
	KPWD S.R 2018-19								
	BC Road								
	ISAQ layout								
	Ch:00-363 1st Main Road								
	Ch:00-30 4th Cross Road								
	Ch:00-30 5th Cross Road								
	Ch:00-38 6th Cross Road								
	Shushilamma layout								
	Ch:00-335 1st Main Road								
	Ch:00-45 3rd Cross Road								
	Ch:00-40 4th Cross Road								
	Ch:00-48 5th Cross Road								
		Cum	1	363.00	5.30	0.03	57.72		
			1	30.00	4.50	0.03	4.05		
			1	30.00	4.50	0.03	4.05		
			1	38.00	4.50	0.03	5.13		
			1	335.00	5.50	0.03	55.28		
			1	45.00	4.50	0.03	6.08		
			1	40.00	4.30	0.03	5.16		
			1	48.00	4.40	0.03	6.34		

No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
	Ch:00-45 6th Cross Road		1	45.00	4.30	0.03	5.81		
	Ch:00-45 7th Corss Road		1	45.00	4.30	0.03	5.81		
	Road Approches		2	10.00	6.50	0.03	3.90		
						Total Qty	159.33	8699.42	13,86,078.59
21	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803								
	KPWD S R 2018-19								
	Road Marking								
	Road Both Side								
	ISAQ layout								
	Ch:00-363 1st Main Road		1	2	363.00	0.15	108.90		
	Ch:00-30 4th Cross Road		1	2	30.00	0.15	9.00		
	Ch:00-30 5th Cross Road		1	2	30.00	0.15	9.00		
	Ch:00-38 6th Cross Road		1	2	38.00	0.15	11.40		
	Shushilamma layout								
	Ch:00-335 1st Main Road		1	2	335.00	0.15	100.50		
	Ch:00-45 3rd Cross Road		1	2	45.00	0.15	13.50		
	Ch:00-40 4th Cross Road		1	2	40.00	0.15	12.00		
	Ch:00-48 5th Cross Road		1	2	48.00	0.15	14.40		
	Ch:00-45 6th Cross Road		1	2	45.00	0.15	13.50		
	Ch:00-45 7th Corss Road		1	2	45.00	0.15	13.50		
	Road Centre								
	ISAQ layout								
	Ch:00-363 1st Main Road		1		181.50	0.10	18.15		
	Shushilamma layout								
	Ch:00-335 1st Main Road		1		167.50	0.10	16.75		
	Zeebra Crossing		2	6	0.50	1.80	10.80		
		Sqm				Total Qty	351.40	454.74	1,59,795.64
22	KSRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 - DO III Dt 11.06.1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer. KSRRB M800- Traffic cone								
	KPWD S.R 2018-19								
	Road Both Side								
	ISAQ layout								
	Ch:00-363 1st Main Road		91	2			182.00		
	Shushilamma layout								
	Ch:00-335 1st Main Road		84	2			168.00		
	Road Center								
	ISAQ layout								
	Ch:00-363 1st Main Road		91	1			91.00		
	Shushilamma layout								
	Ch:00-335 1st Main Road		84	1			84.00		
	Zeebra Crossing		6	2			12.00		
						Total Qty	537.00	357.22	1,91,827.14

It. No. 24.15 Pg No. 182

It. No. 24.41 Pg No. 187

No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount in Rs.
23	Direction and Place Identification Signs with size morethan 0.9 Size Board: Providing and erecting direction and place identification retro -reflectorised sign as per IRC:67 made of high i ntensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing.								
	KPWD S.R 2018-19								
	Cross roads								
		It. No.		24.4.		Pg.No.	180		
		Sqm	4	0.90		0.90	3.24		
						Total Qty	**3.24**	7557.80	24,487.27
								Total Constrution cost	1,66,09,227.17
								GST 12%	19,93,107.26
								Tender Premium 6%	9,96,553.63
								Design Report,Proof Checking & PMC Amount	4,00,000.00
								Sub Total	1,99,98,888.06
								Miscellaneous & Rounding Off	1,111.94
								Grand Total	2,00,00,000.00

Certificate:-

1. The workspot was inspected and work is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike Limits.
3. The rates adopted based on the PWD SR Bangalore Circle for year 2018-19
4. The provisions made in the estimate are necessary and essential.

SRI SAI CONSULTANTS * BANGALORE-90 *

Consultant
For Sri Sai Consultants

Assistant Engineer
Ward 02
BBMP - Bangalore

Assistant Executive Engineer
Yelahanka Sub-Division
BBMP - Bangalore

Executive Engineer
Yalahanka Division
BBMP - Bangalore

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work: Improvements to roads and drains at Kenchenahalli balaji layout main and cross roads and Prakruthi layout main and cross roads and surrounding areas in chowdeshwari ward no-02, Yelahanka sub Division

JOB NUMBER.: Go.No-1510 Est. Amount = 200.00 Lakhs

Sl. No	Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB 200-8. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications. MORTH / Chapter 2								
	KPWD S.R 2018-19 lt. No. 18.11 Pg.No. 138								
	Balaji layout								
	Ch:00-311 1st Main road	Sqm	2	311.00	0.75		466.50		
	Ch:00-68 2nd Cross Road		2	68.00	0.75		102.00		
	Ch:00-70 3rd Cross Road		2	70.00	0.75		105.00		
	Ch:00-72 4th Cross Road		2	72.00	0.75		108.00		
	Ch:00-70 5th Cross Road		2	70.00	0.75		105.00		
	Ch:00-70 6th Cross Road		2	70.00	0.75		105.00		
	Ch:00-70 7th Cross Road		2	70.00	0.75		105.00		
	Ch:00-70 8th Cross Road								
	Prakruthi layout		2	180.00	0.75		270.00		
	Ch:00-180 1st Main Road		2	160.00	0.75		240.00		
	Ch:00-160 1st Cross Road								
	Kenchanahalli		2	170.00	0.75		255.00		
	Ch:00-170 3rd Main Road								
						Total Qty	1966.50	10.60	20,844.90
2	Removing and resetting of footpath slab								
	KPWD S.R 2018-19 lt. No. 37.56 Pg.No. 270								
	Exisisting Cover Slab								
	Balaji layout		1	264.00	0.90		237.60		
	Ch:00-311 1st Main road	sqm	2	58.00	0.90		104.40		
	Ch:00-68 2nd Cross Road		2	60.00	0.90		108.00		
	Ch:00-70 3rd Cross Road		2	62.00	0.90		111.60		
	Ch:00-72 4th Cross Road		2	60.00	0.90		108.00		
	Ch:00-70 5th Cross Road		2	60.00	0.90		108.00		
	Ch:00-70 6th Cross Road		2	60.00	0.90		108.00		
	Ch:00-70 8th Cross Road					Total Qty	885.60	208.82	1,84,930.99
3	KSRRB300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications. (Page No.-143 I.No-19.1 of KPWD S.R 2018-19)								
	Desilting of drain								
	Balaji layout		1	311.00	0.60	0.30	55.98		
	Ch:00-311 1st Main road		2	68.00	0.60	0.30	24.48		
	Ch:00-68 2nd Cross Road		2	70.00	0.60	0.30	25.20		
	Ch:00-70 3rd Cross Road		2	72.00	0.60	0.30	25.92		
	Ch:00-72 4th Cross Road		2	70.00	0.60	0.30	25.20		
	Ch:00-70 5th Cross Road		2	70.00	0.60	0.30	25.20		
	Ch:00-70 6th Cross Road		2	70.00	0.60	0.30	25.20		
	Ch:00-70 8th Cross Road								
	Kenchanahalli		1	170.00	0.50	0.30	25.50		
	Ch:00-170 3rd Main Road								
	New CC Drain		1	311.00	1.00	0.90	279.90		
	Balaji layout		2	70.00	1.00	0.90	126.00		
	Ch:00-311 1st Main road								
	Ch:00-70 7th Cross Road		2	180.00	1.00	0.90	324.00		
	prakruthi layout		2	160.00	1.00	0.90	288.00		
	Ch:00-180 1st Main Road								
	Ch:00-160 1st Cross Road		1	116.00	1.00	0.90	104.40		
	Kenchanahalli	Cum							
	Ch:00-170 3rd Main Road								
	New Kerb								

	Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate In Rs.	Amount In Rs.
	Balaji layout								
	Ch:00-311 1st Main road		2	311.00	0.20	0.20	24.88		
	prakruthi layout								
	Ch:00-180 1st main Road		2	180.00	0.20	0.20	14.40		
	New Culvert								
	Cross roads		4	6.40	1.50	1.20	46.08		
						Total	1440.34		
	Deduction of Existing Drain								
	Balaji layout		1	311.00	0.60	0.45	83.97		
	Ch:00-311 1st Main road		2	70.00	0.60	0.45	37.80		
	Ch:00-70 7th Cross Road								
	prakruthi layout		2	180.00	0.60	0.45	97.20		
	Ch:00-180 1st main Road		2	160.00	0.60	0.45	86.40		
	Ch:00-160 1st Cross Road						305.37		
						Total Qty	1134.97	211.79	2,40,373.03
4	KSRRB M2100-10. Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. MORTH Specification No. 2100 (Page No 222, It No. 27.18 of KPWD S.R 2018-19)								
	New CC Drain								
	Balaji layout								
	Ch:00-311 1st Main road	Cum	1	311.00	1.00	0.15	46.65		
	Ch:00-70 7th Cross Road		2	70.00	1.00	0.15	21.00		
	prakruthi layout								
	Ch:00-180 1st Main Road		2	180.00	1.00	0.15	54.00		
	Ch:00-160 1st Cross Road		2	160.00	1.00	0.15	48.00		
	Kenchanahalli								
	Ch:00-170 3rd Main Road		1	116.00	1.00	0.15	17.40		
	New Kerb								
	Balaji layout		2	311.00	0.20	0.10	12.44		
	Ch:00-311 1st Main road								
	prakruthi layout		2	180.00	0.20	0.10	7.20		
	Ch:00-180 1st main Road								
	New Culvert		4	6.40	1.50	0.15	5.76		
	cross roads					Total Qty	212.45	5505.64	11,69,673.22
5	KSRB 4.9.2 : Providing TMT bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specifications. Specification No. KBS 4.6.3 (Page No.-181 No-4.46.2 of KPWD S.R 2018-19)								
	For Drain								
	For Drain (60kg/m3)	Tonne	1	27.02			27.02		
	For Culvert (90kg/m3)		1	1.82			1.82		
						Total Qty	28.84	72326.98	20,85,910.10
6	Providing and laying plain/reinforced cement concrete for side drains Wall & bottom thickness 15cm using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500,1700, 2200. Including cost of materials, labour, HOM complete as per specifications (Page No.-271 I.No-37.59.2 of KPWD S.R 2018-19)								
	New CC Drain								
	Bottom Slab								
	Balaji layout		1	1 311.00	0.90	0.15	41.99		
	Ch:00-311 1st Main road		2	1 70.00	0.90	0.15	18.90		
	Ch:00-70 7th Cross Road								
	prakruthi layout		2	1 180.00	0.90	0.15	48.60		
	Ch:00-180 1st Main Road		2	1 160.00	0.90	0.15	43.20		
	Ch:00-160 1st Cross Road								

	Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate In Rs.	Amount In Rs.
	enchanahalli								
	h:00-170 3rd Main Road								
	ide wall								
	Balaji layout								
	Ch:00-311 1st Main road		1 1	116.00	0.90	0.15	15.66		
	Ch:00-70 7th Cross Road								
	prakruthi layout								
	Ch:00-180 1st Main Road		1 2	311.00	0.15	0.80	74.64		
	Ch:00-160 1st Cross Road		2 2	70.00	0.15	0.70	29.40		
	Kenchanahalli								
	Ch:00-170 3rd Main Road		2 2	180.00	0.15	0.80	86.40		
	New Culvert		2 2	160.00	0.15	0.70	67.20		
	Bottom Slab								
	side wall		1 2	116.00	0.15	0.70	24.36		
			4 1	6.40	1.50	0.25	9.60		
			4 2	6.40	0.23	0.90	10.60		
						Total Qty	**470.55**	**7070.20**	**33,26,882.61**
8	Supplying and fixing precast reinforced concrete slab 10 cm thick of mix M20 using 20mm and 20mm down size with steel reinforcement, including from work, lift charges, curing and concrete finished surfaces on both side etc. complete and as per drawing and direction of Engineer-in-charge of work (data Rate enclosed)								
	New CC Drain	Cum							
	Balaji layout								
	Ch:00-311 1st Main road		1	311.00	0.90		279.90		
	Ch:00-70 7th Cross Road		2	70.00	0.90		126.00		
	prakruthi layout								
	Ch:00-180 1st Main Road		2	180.00	0.90		324.00		
	Ch:00-160 1st Cross Road		2	160.00	0.90		288.00		
	Kenchanahalli								
	Ch:00-170 3rd Main Road		1	116.00	0.90		104.40		
	Cover Slab for Dameged Portion								
	Balaji layout		1	47.00	0.90		42.30		
	Ch:00-311 1st Main road		2	10.00	0.90		18.00		
	Ch:00-68 2nd Cross Road		2	10.00	0.90		18.00		
	Ch:00-70 3rd Cross Road		2	10.00	0.90		18.00		
	Ch:00-72 4th Cross Road		2	10.00	0.90		18.00		
	Ch:00-70 5th Cross Road		2	10.00	0.90		18.00		
	Ch:00-70 6th Cross Road		2	10.00	0.90		18.00		
	Ch:00-70 8th Cross Road								
						Total Qty	**1272.60**	**2337.00**	**29,74,066.20**
9	Providing and fixing Pre cast solid concrete kerb stones of size 450 x 200 x 400 mm made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete.								
	New Culvert	Sqm							
	Cross roads		4	6.40	1.50		38.40		
						Total Qty	**38.40**	**5418.00**	**2,08,051.20**
	KPWD S.R 2018-19								
	New Kerb(mts/kerb length=no's of kerb)			lt. No. 5.29.1		Pg.No. 27			
	Balaji layout								
	Ch:00-311 1st Main road	Nos	2	691.00			1382.00		
	prakruthi layout								
	Ch:00-180 1st main Road		2	400.00			800.00		
						Total Qty	**2182.00**	**477.00**	**10,40,814.00**
10	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8								
	KPWD S.R 2018-19								
	New Kerb for Damaged Portion (mts/kerb length=no's of kerb)			lt. No. 24.1		Pg.No. 180			
	Balaji layout								
	Ch:00-311 1st Main road	Sqm	2	311.00		0.50	311.00		
	prakruthi layout								
	Ch:00-180 1st main Road		2	180.00		0.50	180.00		
						Total Qty	**491.00**	**84.80**	**41,636.80**

	Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate In Rs.	Amount In Rs.
	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 and 4Kms Lead for Disposal								
	KPWD S.R 2018-19	It. No.	19.14	Pg.No.	143				
	Earth for Road								
	New BC Road								
	Prakruthi layout								
	Ch:00-160 1st Cross Road	Cum	1	160.00	5.00	0.30	240.00		
	Kenchanahalli								
	Ch:00-170 3rd Main Road		1	170.00	5.30	0.30	270.30		
						Total Qty	**510.30**	**57.03**	**29,101.39**
2	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregatesof granite/trap/basalt material, mixing by mix in place method by rotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications.Clause 401 of MORTH V Revision.								
	KPWD S.R 2018-19	It. No.	20.60	Pg.No.	153				
	GSB								
	New BC Road								
	Prakruthi layout								
	Ch:00-160 1st Cross Road	Cum.	1	160.00	5.00	0.15	120.00		
	Kenchanahalli								
	Ch:00-170 3rd Main Road		1	170.00	5.30	0.15	135.15		
						Total Qty	**255.15**	**1855.00**	**4,73,303.25**
13	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406								
	KPWD S.R 2018-19	It. No.	20.18	Pg.No.	155				
	Wet Mix								
	New BC Road								
	Prakruthi layout								
	Ch:00-160 1st Cross Road	Cum	1	160.00	5.00	0.20	160.00		
	Kenchanahalli								
	Ch:00-170 3rd Main Road		1	170.00	5.30	0.20	180.20		
						Total Qty	**340.20**	**2001.28**	**6,80,835.46**
14	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.MORTH I Chapter 3								
	KPWD S.R 2018-19	It. No.	19.64	Pg.No.	147				
	Compaction								
	New BC Road								
	Prakruthi layout								
	Ch:00-160 1st Cross Road	Sqm	1	160.00	5.00		800.00		
	Kenchanahalli								
	Ch:00-170 3rd Main Road		1	170.00	5.30		901.00		
						Total Qty	**1701.00**	**6.36**	**10,818.36**
15	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.Clause 502 of MORTH V revision								
	KPWD S.R 2018-19	It. No.	21.6	Pg.No.	158				
	Prime Coat								
	New BC Road								
	Prakruthi layout								
	Ch:00-160 1st Cross Road	Sqm	1	160.00	5.00		800.00		
	Kenchanahalli								
	Ch:00-170 3rd Main Road		1	170.00	5.30		901.00		
	BM for Profile Correction								
	Consider 15% in Total Area		1	4954.00			743.10		
						Total Qty	**2444.10**	**33.92**	**82,903.87**

No	Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate In Rs.	Amount In Rs.
16	KSRRB 500-2 Cleaning the existing black topped surface with Sqm brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications. Clause 501 of MORTH V revision								
	KPWD S.R 2018-19								
	Cleaning								
	Balaji layout								
	Ch:00-311 1st Main road		1	311.00	8.00		2488.00		
	Ch:00-68 2nd Cross Road		1	68.00	4.70		319.60		
	Ch:00-70 3rd Cross Road		1	70.00	4.70		329.00		
	Ch:00-72 4th Cross Road		1	72.00	4.70		338.40		
	Ch:00-70 5th Cross Road		1	70.00	4.70		329.00		
	Ch:00-70 6th Cross Road		1	70.00	4.70		329.00		
	Ch:00-70 7th Cross Road		1	70.00	4.70		329.00		
	Ch:00-70 8th Cross Road						329.00		
	Prakruthi layout								
	Ch:00-180 1st Main Road		1	180.00	5.00		900.00		
	Road Approches		1	10.00	6.13		61.30		
		Sqm				Total Qty	5752.30	5.30	30,487.19
	It. No. 21.20 Pg.No. 158								
17	KSRRB M500-17 Providing and laying dense graded bituminous macadam using 120 TPH capacity Asphalt batch mix plant with sensor paver Gr-I I (50 mm to 75 mm) with 4.5 % VG-30 Bitumen crushed aggregates of specified grading; premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and ialignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision								
	KPWD S.R 2018-19								
	BM For Road								
	New BC Road								
	Prakruthi layout								
	Ch:00-160 1st Cross Road		1	160.00	5.00	0.05	40.00		
	Kenchanahalli								
	Ch:00-170 3rd Main Road		1	170.00	5.30	0.05	45.05		
	BM for Profile Correction								
	Consider 15% in Total Area		1	4954.00		0.05	37.16		
		Cum				Total Qty	122.21	7620.34	9,31,281.75
	It. No. 21.17.2 Pg.No. 160								
18	KSRRB M500-10 Providing and applying tack coat using 80/100 grade Sqm bitumen(VGIO) in boiler fitted with spray set distributor at the rate of 0.25 kg per sqm on the existing prepared bituminous surface (primed surface) cleaned with mechanical broom, complete as per specifications. Clause 503 of MORTH V revision								
	KPWD S.R 2018-19								
	BC Road								
	Balaji layout								
	Ch:00-311 1st Main road		1	311.00	8.00		2488.00		
	Ch:00-68 2nd Cross Road		1	68.00	4.90		333.20		
	Ch:00-70 3rd Cross Road		1	70.00	4.90		343.00		
	Ch:00-72 4th Cross Road		1	72.00	4.90		352.80		
	Ch:00-70 5th Cross Road		1	70.00	4.90		343.00		
	Ch:00-70 6th Cross Road		1	70.00	4.90		343.00		
	Ch:00-70 7th Cross Road		1	70.00	4.90		343.00		
	Ch:00-70 8th Cross Road						343.00		
	Prakruthi layout								
	Ch:00-180 1st Main Road		1	180.00	5.10		918.00		
	Ch:00-160 1st Cross Road		1	160.00	5.00		800.00		
	Kenchanahalli								
	Ch:00-170 3rd Main Road		1	170.00	5.00		850.00		
	Road Approches		1	10.00	6.50		65.00		
		Sqm				Total Qty	7457.00	12.72	94,853.04
	It. No. 21.7 Pg.No. 158								
19	Providing and laying bituminous concrete 40mm thick with hot mix plant, using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminous binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.								
	KPWD S.R 2018-19								
	BC Road								
	Balaji layout								
	Ch:00-311 1st Main road		1	311.00	8.00	0.04	99.52		
	It. No. 21.22.6 Pg.No. 162								

Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate In Rs.	Amount In Rs.
)-68 2nd Cross Road	Cum	1	68.00	4.90	0.04	13.33		
)-70 3rd Cross Road		1	70.00	4.90	0.04	13.72		
)-72 4th Cross Road		1	72.00	4.90	0.04	14.11		
0-70 5th Cross Road		1	70.00	4.90	0.04	13.72		
0-70 6th Cross Road		1	70.00	4.90	0.04	13.72		
0-70 7th Cross Road		1	70.00	4.90	0.04	13.72		
0-70 8th Cross Road		1	70.00	4.90	0.04	13.72		
kruthi layout								
00-180 1st Main Road		1	180.00	5.10	0.04	36.72		
00-160 1st Cross Road		1	160.00	5.00	0.03	24.00		
nchanahalli								
00-170 3rd Main Road		1	170.00	5.00	0.03	25.50		
ad Approches		8	10.00	6.50	0.04	20.80		
					Total Qty	302.58	8699.42	26,32,270.50

SRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass eads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic ompound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 m is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished urface to be level, uniform and free from streaks and holes complete as per specifications. MORTH pecification No. 803

KPWD S.R 2018-19 — It. No. 24.15 — Pg No. 182

	Unit	No		L	B	D	Quantity	Rate	Amount
Road Marking									
Road Both Side									
Balaji layout									
Ch:00-311 1st Main road	Sqm	1	2	311.00	0.15		93.30		
Ch:00-68 2nd Cross Road		1	2	68.00	0.15		20.40		
Ch:00-70 3rd Cross Road		1	2	70.00	0.15		21.00		
Ch:00-72 4th Cross Road		1	2	72.00	0.15		21.60		
Ch:00-70 5th Cross Road		1	2	70.00	0.15		21.00		
Ch:00-70 6th Cross Road		1	2	70.00	0.15		21.00		
Ch:00-70 7th Cross Road		1	2	70.00	0.15		21.00		
Ch:00-70 8th Cross Road		1	2	70.00	0.15		21.00		
Prakruthi layout									
Ch:00-180 1st Main Road		1	2	180.00	0.15		54.00		
Ch:00-160 1st Cross Road		1	2	160.00	0.15		48.00		
Kenchanahalli									
Ch:00-170 3rd Main Road		1	2	170.00	0.15		51.00		
Road Center									
Balaji layout		1		155.50	0.10		15.55		
Ch:00-311 1st Main road		1		90.00	0.10		9.00		
Prakruthi layout		3	8	1.80	0.50		21.60		
Ch:00-180 1st Main Road						Total Qty	439.45	454.74	1,99,835.49
Zeebra Crossing									

21 KSRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 - DO III Dt 11.06.1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer. KSRRB M800- Traffic cone

KPWD S.R 2018-19 — It. No. 24.41 — Pg No. 187

	Unit	No		L	B	D	Quantity	Rate	Amount
Road Both Side									
Balaji layout									
Ch:00-311 1st Main road	Nos	78	2				156.00		
Prakruthi layout									
Ch:00-180 1st Main Road		45	2				90.00		
Road Center									
Balaji layout		78					78.00		
Ch:00-311 1st Main road									
Prakruthi layout		45					45.00		
Ch:00-180 1st Main Road						Total Qty	369.00	357.22	1,31,814.18

Description of Work	Unit	No	Dimension L	B	D	Quantity	Rate in Rs.	Amount In Rs.
Direction and Place Identification Signs with size morethan 0.9 Size Board: Providing and erecting direction and place identification retro -reflectorised sign as per IRC:67 made of high i ntensity grade sheeting vide Clause 801 3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing.								
KPWD S.R 2018-19								
Cross Roads								
	It. No.		24.4.		Pg.No.	180		
	Sqm	3	0.90		0.90	2.43		
					Total Qty	2.43	7557.80	18,365.45
							Total Constrution cost	1,66,09,052.98
							GST 12%	19,93,086.36
							Tender Premium 6%	9,96,543.18
							Design Report,Proof Checking & PMC Amount	4,00,000.00
							Sub Total	1,99,98,682.52
							Miscellaneous & Rounding Off	1,317.48
							Grand Total	2,00,00,000.00

Certificate:-

1. The workspot was inspected and work is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike Limits.
3. The rates adopted based on the PWD SR Bangalore Circle for year 2018-19
4. The provisions made in the estimate are necessary and essential.

SRI SAI CONSULTANTS * BANGALORE-90 *

Consultant
For Sri Sai Consultants

Assistant Engineer
Ward-02
BBMP - Bangalore

Assistant Executive Engineer
Yelahanka Sub-Division
BBMP - Bangalore

Executive Engineer
Yelahanka
BBMP - Bangalore

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work: Improvements to roads and drains at Synika viahara badavane balance main and cross roads, Suryavamshi layout balance main and cross roads and surrounding areas in chowdeshwari ward no -02 , Yelahanka Sub Division

JOB NUMBER.:

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Go.No 1511 / Est. Amount = 200.00 Lakhs — Rate In Rs.	Amount in Rs.
1	KSRRB 200-8 Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications.								
	KPWD S.R 2018-19	It. No.	18.11	Pg.No.	138				
	Exisisting Drain								
	synika vihar layout								
	Ch:00-180 1st Main Road	Sqm	2	180.00	0.75		270.00		
	Ch:00-200 2nd Main Road		2	200.00	0.75		300.00		
	Ch:200-330 2nd main road		2	130.00	0.75		195.00		
	Ch:00-230 3rd Main Road		2	230.00	0.75		345.00		
	sai vihar Layout								
	Ch:00-350 5th cross Road		1	350.00	0.75		262.50		
	Ch:00-75 2nd cross Road		2	75.00	0.75		112.50		
						Total Qty	1485.00	10.60	15,741.00
2	Removing and resetting of footpath slab								
	KPWD S.R 2018-19	It. No.	37.56	Pg.No.	270				
	CoverSlab								
	synika vihar layout								
	Ch:200-330 2nd main road	sqm	2	95.00	0.90		171.00		
	sai vihar Layout								
	Ch:00-350 5th cross Road		1	258.00	0.90		232.20		
	Ch:00-75 2nd cross Road		2	60.00	0.90		108.00		
						Total Qty	511.20	208.82	1,06,748.78
3	KSRRB300-1 Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications.								
	KPWD S.R 2018-19	It. No.	19.10	Pg.No.	143				
	Desilting of drain								
	synika vihar layout								
	Ch:200-330 2nd main road	Cum	2	130.00	0.45	0.30	35.10		
	sai vihar Layout								
	Ch:00-350 5th cross Road		1	350.00	0.45	0.30	47.25		
	Ch:00-75 2nd cross Road		2	75.00	0.45	0.30	20.25		
	New CC Drain								
	synika vihar layout								
	Ch:00-180 1st Main Road		2	180.00	1.00	0.90	324.00		
	Ch:00-200 2nd Main Road		2	200.00	1.00	0.90	360.00		
	Ch:00-230 3rd Main Road		2	230.00	1.00	0.90	414.00		
	sai vihar Layout								
	Ch:75-105 2nd cross		2	30.00	1.00	0.90	54.00		
	New Culvert								
	Cross roads		5	6.00	1.50	1.20	54.00		
						Total Qty	1308.60	211.79	2,77,145.78

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount in Rs.
4	KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. KPWD S.R 2018-19 It. No. 4.2. Pg.No. 13								
	New CC Drain	Cum							
	synika vihar layout								
	Ch:00-180 1st Main Road		2	180.00	1.00	0.15	54.00		
	Ch:00-200 2nd Main Road		2	200.00	1.00	0.15	60.00		
	Ch:00-230 3rd Main Road		2	230.00	1.00	0.15	69.00		
	sai vihar Layout								
	Ch:75-105 2nd cross		2	30.00	1.00	0.15	9.00		
	New Culvert								
	cross roads		5	6.00	1.50	0.15	6.75		
						Total Qty	**198.75**	**5505.64**	**10,94,245.95**
5	KSRRB M2200-6. Providing TMT Bars Fe 500 steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200 KPWD S.R 2018-19 It. No. 28.8.2 Pg.No. 229								
	For Drain	Tonne							
	For CC Drain (60 Kg/Cum)		1	26.50			26.50		
	For Culvert (90 Kg/Cum)		1	2.58			2.58		
						Total Qty	**29.08**	**72326.98**	**21,03,268.58**
6	Providing and laying plain/reinforced cement concrete for side drains Wall & bottom thickness 15cm using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500,1700, 2200. including cost of materials, labour, HOM complete as per specifications. KPWD S.R 2018-19 It. No. 37.59.2 Pg.No. 271								
	New CC Drain	Cum							
	Bottom Slab								
	synika vihar layout								
	Ch:00-180 1st Main Road		2	1	180.00	0.90	0.15	48.60	
	Ch:00-200 2nd Main Road		2	1	200.00	0.90	0.15	54.00	
	Ch:00-230 3rd Main Road		2	1	230.00	0.90	0.15	62.10	
	sai vihar Layout								
	Ch:75-105 2nd cross		2	1	30.00	0.90	0.15	8.10	
	Side wall								
	synika vihar layout								
	Ch:00-180 1st Main Road		2	2	180.00	0.15	0.70	75.60	
	Ch:00-200 2nd Main Road		2	2	200.00	0.15	0.70	84.00	
	Ch:00-230 3rd Main Road		2	2	230.00	0.15	0.70	96.60	
	sai vihar Layout								
	Ch:75-105 2nd cross		2	2	30.00	0.15	0.70	12.60	
	New Culvert								
	Cross Roads (side wall)		5	2	6.00	1.50	0.25	22.50	
	Cross Roads(bottom slab)		5	1	6.00	0.23	0.90	6.21	
							Total Qty	**470.31**	**7070.20**	**33,25,185.76**

No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
7	Supplying and fixing precast reinforced concrete slab 10 cm thick of mix M20 using 20mm and downsize graded granite metal using reinforcement 10mm dia steel at 150mm C/c both ways cost, transportation, hire charges of machinery, machine cutting the vertical face to get plain even surface etc., complete with all leads and lift conveyance charges, labour charges inclusive of cost of cost of all materials(data Rate enclosed) Approved Data Rate								
	New CC Drain								
	synika vihar layout								
	Ch:00-180 1st Main Road	Sqm	2	180.00	0.90		324.00		
	Ch:00-200 2nd Main Road		2	200.00	0.90		360.00		
	Ch:00-230 3rd Main Road		2	230.00	0.90		414.00		
	sai vihar Layout								
	Ch:75-105 2nd cross		2	30.00	0.90		54.00		
	Cover Slab For damged Portion								
	synika vihar layout								
	Ch:200-330 2nd main road		2	35.00	0.90		63.00		
	sai vihar Layout								
	Ch:00-350 5th cross Road		1	91.00	0.90		81.90		
	Ch:00-75 2nd cross Road		2	15.00	0.90		27.00		
						Total Qty	1323.90	2337.00	30,93,954.30
8	Providing and laying Pre Cast Drain Cover slabs of 250mm thick of mix M20 using graded granite jelly 20mm down size with steel reinforcement, including from work, lift charges, curing and concrete finished surfaces on both side etc. complete and as per drawing and direction of Engineer-in-charge of work (data Rate enclosed) Approved Data Rate								
	New Culvert								
	Cross roads	Sqm	5	6.00	1.50		45.00		
						Total Qty	45.00	5418.00	2,43,810.00
9	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by mechanical means attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM complete as per specifications. MORTH I Chapter 3 KPWD S.R 2018-19 It. No. 19.56 Pg.No. 146								
	New BC Road								
	synika vihar layout								
	Ch:00-180 1st Main Road	Sqm	1	180.00	1.40		252.00		
	Ch:00-200 2nd Main Road		1	200.00	1.40		280.00		
						Total Qty	532.00	54.91	29,211.06
10	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. KPWD S.R 2018-19 It. No. 19.14 Pg.No. 143								
	Earth for Road								
	New BC Road								
	synika vihar layout								
	Ch:00-180 1st Main Road	Cum	1	180.00	4.50	0.30	243.00		
	Ch:00-200 2nd Main Road		1	200.00	4.50	0.30	270.00		
	Ch:00-230 3rd Main Road		1	230.00	4.50	0.30	310.50		
	sai vihar Layout								
	Ch:00-50 Connecting Road		1	50.00	4.50	0.30	67.50		
	Ch:75-105 2nd cross		1	30.00	4.50	0.30	40.50		
						Total Qty	931.50	57.03	53,121.58
11	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregatesof granite/trap/basalt material, mixing by mix in place method by rotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications.Clause 401 of MORTH V Revision.. KPWD S.R 2018-19 It. No. 20.60 Pg.No. 153								
	GSB								
	New BC Road								
	synika vihar layout								
	Ch:00-180 1st Main Road		1	180.00	4.50	0.15	121.50		

	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
	h:00-200 2nd Main Road	Sqm	1	200.00	4.50	0.15	135.00		
	h:00-230 3rd Main Road		1	230.00	4.50	0.15	155.25		
	al vihar Layout								
	h:00-50 Connecting Road		1	50.00	4.50	0.15	33.75		
	h:75-105 2nd cross		1	30.00	4.50	0.15	20.25		
						Total Qty	465.75	1855.00	8,63,966.25
	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406								
	KPWD S.R 2018-19	It. No.		20.18	Pg.No.	155			
	Wet Mix								
	New BC Road								
	synika vihar layout								
	Ch:00-180 1st Main Road	Cum	1	180.00	4.50	0.20	162.00		
	Ch:00-200 2nd Main Road		1	200.00	4.50	0.20	180.00		
	Ch:00-230 3rd Main Road		1	230.00	4.50	0.20	207.00		
	sal vihar Layout								
	Ch:00-50 Connecting Road		1	50.00	4.50	0.20	45.00		
	Ch:75-105 2nd cross		1	30.00	4.50	0.20	27.00		
						Total Qty	621.00	2001.28	12,42,794.88
13	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.MORTH I Chapter 3								
	KPWD S.R 2018-19	It. No.		19.64	Pg.No.	147			
	Compaction								
	New BC Road								
	synika vihar layout								
	Ch:00-180 1st Main Road	Sqm	1	180.00	4.50		810.00		
	Ch:00-200 2nd Main Road		1	200.00	4.50		900.00		
	Ch:00-230 3rd Main Road		1	230.00	4.50		1035.00		
	sal vihar Layout								
	Ch:00-50 Connecting Road		1	50.00	4.50		225.00		
	Ch:75-105 2nd cross		1	30.00	4.50		135.00		
						Total Qty	3105.00	6.36	19,747.80
14	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.Clause 502 of MORTH V revision								
	KPWD S R 2018-19	It. No.		21.6	Pg.No.	158			
	Prime Coat								
	New BC Road								
	synika vihar layout								
	Ch:00-180 1st Main Road	Sqm	1	180.00	4.50		810.00		
	Ch:00-200 2nd Main Road		1	200.00	4.50		900.00		
	Ch:00-230 3rd Main Road		1	230.00	4.50		1035.00		
	sal vihar Layout								
	Ch:00-50 Connecting Road		1	50.00	4.50		225.00		
	Ch:75-105 2nd cross		1	30.00	4.50		135.00		
	Prime Coat For Profile Correction								
	Consider 15% in total Road Area		1	543.75			543.75		
						Total Qty	3648.75	33.92	1,23,765.60
15	KSRRB 500-2. Cleaning the existing black topped surface with Sqm brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications. Clause 501 of MORTH V revision								
	KPWD S.R 2018-19	It. No.		21.20	Pg.No.	158			
	Cleaning								
	synika vihar layout	Sqm	1	130.00	5.00		650.00		
	Ch:200-330 2nd main road		1	75.00	4.20		315.00		
	sal vihar Layout		1	200.00	4.20		840.00		
	Ch:00-75 2nd cross Road								
	Ch:00-200 4th Cross Road								

Sl No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount in Rs.
	Ch:00-350 5th cross Road								
	Approach Roads		1	350.00	4.20		1470.00		
			5	10.00	7.00		350.00		
16						Total Qty	3625.00	5.30	19,212.50
	KSRRB M500-17 Providing and laying dense graded bituminous macadam using 120 TPH capacity Asphalt batch mix plant with sensor paver Gr-I I (50 mm to 75 mm) with 4.5 % VG-30 Bitumen crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and ialignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision								
	KPWD S.R 2018-19	It. No.	21.17.2		Pg No.	160			
	New BC Road	Cum							
	synika vihar layout								
	Ch:00-180 1st Main Road		1	180.00	4.50	0.05	40.50		
	Ch:00-200 2nd Main Road		1	200.00	4.50	0.05	45.00		
	Ch:00-230 3rd Main Road		1	230.00	4.50	0.05	51.75		
	sai vihar Layout								
	Ch:00-50 Connecting Road		1	50.00	4.50	0.05	11.25		
	Ch:75-105 2nd cross		1	30.00	4.50	0.05	6.75		
	DBM For Profile Correction								
	Consider 15% in total Road Area		1	543.75		0.05	27.19		
						Total Qty	182.44	7620.34	13,90,254.83
17	KSRRB M500-10. Providing and applying tack coat using 80/100 grade Sqm bitumen(VGIO) in boiler fitted with spray set distributor at the rate of 0.25 kg per sqm on the existing prepared bituminous surface (primed surface) cleaned with mechanical broom, complete as per specifications. Clause 503 of MORTH V revision								
	KPWD S.R 2018-19	It. No.	21.10		Pg No.	159			
	synika vihar layout	Sqm							
	Ch:200-330 2nd main road		1	130.00	5.00		650.00		
	sai vihar Layout								
	Ch:00-75 2nd cross Road		1	75.00	4.20		315.00		
	Ch:00-200 4th Cross Road		1	200.00	4.20		840.00		
	Ch:00-350 5th cross Road		1	350.00	4.20		1470.00		
	New BC Road								
	synika vihar layout								
	Ch:00-180 1st Main Road		1	180.00	4.50		810.00		
	Ch:00-200 2nd Main Road		1	200.00	4.50		900.00		
	Ch:00-230 3rd Main Road		1	230.00	4.50		1035.00		
	sai vihar Layout								
	Ch:00-50 Connecting Road		1	50.00	4.50		225.00		
	Ch:75-105 2nd cross		1	30.00	4.50		135.00		
	Approach Roads		5	10.00	7.00		350.00		
						Total Qty	6730.00	12.72	85,605.60
18	Providing and laying bituminous concrete 40mm thick with hot mix plant, using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminous binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.								
	KPWD S.R 2018-19	It. No.	21.78.12		Pg.No.	162			
	synika vihar layout	Cum							
	Ch:200-330 2nd main road		1	130.00	5.00	0.04	26.00		
	sai vihar Layout								
	Ch:00-75 2nd cross Road		1	75.00	4.20	0.04	12.60		
	Ch:00-200 4th Cross Road		1	200.00	4.20	0.04	33.60		
	Ch:00-350 5th cross Road		1	350.00	4.20	0.04	58.80		
	New BC Road								
	synika vihar layout								

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate in Rs.	Amount In Rs.
21	Direction and Place Identification Signs with size morethan 0.9 Size Board: Providing and erecting direction and place identification retro -reflectorised sign as per IRC:67 made of high i ntensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing. KPWD S.R 2018-19 It. No. 24.4. Pg No. 180 **Cross Roads**								
		Nos	7	0.90		0.90	5.67		
						Total Qty	5.67	7557.80	42,852.73
								Total Constrution cost	1,66,06,002.80
								GST 12%	19,92,720.34
								Tender Premium	9,96,360.17
								Design Report,Proof Checking & PMC Amount	4,00,000.00
								Sub Total	1,99,95,083.30
								Miscellaneous & Rounding Off	4,916.70
								Grand Total	2,00,00,000.00

Certificate:-

1. The workspot was inspected and work is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike Limits.
3. The rates adopted based on the PWD SR Bangalore Circle for year 2018-19
4. The provisions made in the estimate are necessary and essential.

SRI SAI CONSULTANTS BANGALORE-90

Consultant
For Sri Sai Consultants

Assistant Engineer
Ward 02
BBMP - Bangalore

Assistant Executive Engineer
Yelahanka Sub-Division
BBMP - Bangalore

Executive Engineer
Yelahanka
BBMP - Bangalore

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work: Improvements to roads and drains at SFS 208 and surrounding areas in ward no:0

Yelahanka Satellite Town sub Division

JOB NUMBER.: | **Go No-1519** | **Est. Amount =** | **100.00** | **Lakhs**

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate in Rs.	Amount In Rs.
1	KSRRB 200-8. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications.								
	KPWD S.R 2018-19	It. No.	18.11		Pg.No.	138			
	Ch:00- 2001st Main Road (Park Surround Road)	sqm	2	200.00	0.75		300.00		
	Ch:200-600		2	400.00	0.75		600.00		
	Ch:600-800		2	200.00	0.75		300.00		
	Ch:800-1015 3rd Main Road		2	215.00	0.75		322.50		
						Total Qty	1522.50	10.60	16,138
2	Removing and resetting of footpath slab								
	KPWD S.R 2018-19	It. No.	37.56		Pg.No.	270			
	Ch:00- 2001st Main Road (Park Surround Road)	sqm	2	170.00	0.90		306.00		
	Ch:200-600		2	350.00	0.90		630.00		
	Ch:600-800		2	160.00	0.90		288.00		
	Ch:800-1015 3rd Main Road		2	172.00	1.20		412.80		
	Ch: 00-230 2nd A main Road		2	210.00	0.90		378.00		
						Total Qty	2014.80	208.82	4,20,730
3	Removing and resetting of kerb stones								
	KPWD S.R 2018-19	It. No.	37.57.		Pg.No.	270			
	Ch:00- 2001st Main Road (Park Surround Road)	M	2	160.00			320.00		
	Ch:200-600		2	320.00			640.00		
	Ch:600-800		2	160.00			320.00		
	Ch:800-1015 3rd Main Road		2	172.00			344.00		
	Ch: 00-230 2nd A main Road		2	200.00			400.00		
						Total Qty	2024.00	104.94	2,12,39
4	Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specificationsand as per directoins of the Engineer in charge of work.								
	KPWD S.R 2018-19	It. No.	19.1.		Pg.No.	130			
	Desilting of Drain	Cum							
	Ch:00- 2001st Main Road (Park Surround Road)		2	200.00	0.50	0.25	50.00		
	Ch:200-600		2	400.00	0.50	0.25	100.00		
	Ch:600-800		2	200.00	0.50	0.25	50.00		
	Ch:800-1015 3rd Main Road		2	215.00	0.50	0.25	53.75		
	Ch: 00-230 2nd A main Road		2	230.00	0.50	0.25	57.50		
	New Culverts								
	Cross Roads		2	6.00	1.50	1.20	21.60		
	New Kerb								
	Ch:00- 2001st Main Road (Park Surround Road)		2	40.00	0.20	0.20	3.20		
	Ch:200-600		2	80.00	0.20	0.20	6.40		
	Ch:600-800		2	40.00	0.20	0.20	3.20		
	Ch:800-1015 3rd Main Road		2	43.00	0.20	0.20	3.44		
	Ch: 00-230 2nd A main Road		2	30.00	0.20	0.20	2.40		
						Total Qty	351.49	211.79	74,4

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amoun In Rs.
5	KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. KPWD S.R 2018-19 It. No. 4.2. Pg.No. 13								
	New Culverts	Cum							
	Cross Roads		2		6.00	1.50	0.15	2.70		
	New Kerb								
	Ch:00- 2001st Main Road (Park Surround Road)		2		40.00	0.20	0.10	1.60		
	Ch:200-600		2		80.00	0.20	0.10	3.20		
	Ch:600-800		2		40.00	0.20	0.10	1.60		
	Ch:800-1015 3rd Main Road		2		43.00	0.20	0.10	1.72		
	Ch: 00-230 2nd A main Road		2		30.00	0.20	0.10	1.20		
							Total Qty	**12.02**	**5505.64**	**66,17**
6	Providing TMT Bars Fe 500 steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification and as per directoins of the Engineer in charge of work. KPWD S.R 2018-19 It. No. 28.8.2 Pg No. 229								
	For Culvert (90 Kg/Cum)	T	1			0.85	0.85		
							Total Qty	**0.85**	**72326.98**	**61,47**
7	Providing and laying plain/reinforced cement concrete for side drains Wall & bottom thickness 15cm using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500,1700, 2200. including cost of materials, labour, HOM complete as per specifications. KPWD S.R 2018-19 It. No. 37.59.1 Pg.No. 271								
	New Culverts	Cum							
	Bottom Slab		2	1	6.00	1.50	0.25	4.50		
	Side Walls		2	2	6.00	0.23	0.90	4.97		
							Total Qty	**9.47**	**7070.20**	**66,95**
8	Supplying and fixing precast reinforced concrete slab 10 cm thick of mix M20 using 20mm and downsize graded granite metal using reinforcement 10mm dia steel at 150mm C/c both ways cost, transportation, hire charges of machinery, machine cutting the vertical face to get plain even surface etc., complete with all leads and lift conveyance charges, labour charges inclusive of cost of cost of all materials(data Rate enclosed) Approved Data Rate								
	Damaged Portion of Drain	Sqm							
	Ch:00- 2001st Main Road (Park Surround Road)		2		30.00	0.90		54.00		
	Ch:200-600		2		50.00	0.90		90.00		
	Ch:600-800		2		40.00	0.90		72.00		
	Ch:800-1015 3rd Main Road		2		43.00	0.90		77.40		
	Ch: 00-230 2nd A main Road		2		20.00	0.90		36.00		
							Total Qty	**329.40**	**2337.00**	**7,69,80**
9	Providing and laying Pre Cast Drain Cover slabs of 250mm thick of mix M20 using graded granite jelly 20mm down size with steel reinforcement, including from work, lift charges, curing and concrete finished surfaces on both side etc. complete and as per drawing and direction of Engineer-in-charge of work (data Rate enclosed) Approved Data Rate								
	New Culverts	Sqm							
	Cross Roads		2		6.00	1.50		18.00		
							Total Qty	**18.00**	**5418.00**	**97,52**

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
10	Providing and fixing Pre cast solid concrete kerb stones of size 450 x 200 x 400 mm made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete as per specifications and as per directions of Engineer in charge of work. KPWD S.R 2018-19 It. No. 5.29.1 Pg.No. 27								
	New Kerb	Nos							
	Ch:00- 2001st Main Road (Park Surround Road)		2		89			178		
	Ch:200-600		2		178			356		
	Ch:600-800		2		89			178		
	Ch:800-1015 3rd Main Road		2		96			192		
	Ch: 00-230 2nd A main Road		2		67			134		
							Total Qty	1038	477.00	4,95,12
11	Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications and as per directoins of the Engineer in charge of work. KPWD S.R 2018-19 It. No. 24.1 Pg.No. 180								
	New Kerb	Sqm							
	BC Overlay								
	Ch:00- 2001st Main Road (Park Surround Road)		2		200.00	0.50		200.00		
	Ch:200-600		2		400.00	0.50		400.00		
	Ch:600-800		2		200.00	0.50		200.00		
	Ch:800-1015 3rd Main Road		2		215.00	0.50		215.00		
	Ch: 00-230 2nd A main Road		2		230.00	0.50		230.00		
							Total Qty	1245.00	84.80	1,05,576
12	Providing and laying heavy duty cobble stones interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM complete as per specifications and as per directoins of the Engineer in charge of work. KPWD S.R 2018-19 It. No. 14.6 Pg.No. 103								
	Ch:00- 10151st Main Road (Park Surround Road)	sqm	2		150.00	0.80		240.00		
	Ch:00- 10151st Main Road (Park Surround Road)		2		135.00	0.50		135.00		
							Total Qty	375.00	1116.18	4,18,567
13	KSRB 4-1.1: Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 40mm and down size grade granite metal coarse aggregates @0.878cum and fine aggregates @ 0.459cum machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications KPWD S.R 2018-19 It. No. 4.1 Pg.No. 13								
	For Footpath Side Concrete	Cum							
	Ch:00- 1015 1st Main Road (Park Surround Road)		2		800.00	0.50	0.10	80.00		
							Total Qty	80.00	5599.98	4,47,998.
14	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications and as per directoins of the Engineer in charge of work. KPWD S.R 2018-19 It. No. 21.6 Pg.No. 158								
	Prime Coat For Profile Correction	Sqm							
	Consider 15% in total Road Area		1		1561.13			1561.13		
							Total Qty	1561.13	33.92	52,953.

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate in Rs.	Amount in Rs.
15	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications and as per directoins of the Engineer in charge of work.								
	KPWD S.R 2018-19	It. No.	21.20	Pg.No.	158				
	Cleaning								
	Ch:00- 2001st Main Road (Park Surround Road)	Sqm	1	200.00	8.00		1600.00		
	Ch:200-600		1	400.00	8.00		3200.00		
	Ch:600-800		1	200.00	7.50		1500.00		
	Ch:800-1015 3rd Main Road		1	215.00	7.50		1612.50		
	Ch: 00-230 2nd A main Road		1	230.00	8.50		1955.00		
	Approach Roads		6	10.00	9.00		540.00		
						Total Qty	10407.50	5.30	55,15
16	KSRRB M500-17. Providing and laying dense graded bituminous macadam using 120 TPH capacity Asphalt batch mix plant with sensor paver Gr-I I (50 mm to 75 mm) with 4.5 % VG-30 Bitumen crushed aggregates of specified grading; premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and ialignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision								
	KPWD S.R 2018-19	It. No.	21.17.2	Pg.No.	160				
	DBM For Profile Correction								
	Consider 15% in total Road Area	Cum	1	1561.13		0.05	78.06		
						Total Qty	78.06	7620.34	5,94,84
17	Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications and as per directoins of the engineer in charge of work.								
	KPWD S.R 2018-19	It. No.	21.7	Pg.No.	158				
	Tack Coat For Road								
	Ch:00- 2001st Main Road (Park Surround Road)	Sqm	1	200.00	8.00		1600.00		
	Ch:200-600		1	400.00	8.00		3200.00		
	Ch:600-800		1	200.00	7.50		1500.00		
	Ch:800-1015 3rd Main Road		1	215.00	7.50		1612.50		
	Ch: 00-230 2nd A main Road		1	230.00	8.50		1955.00		
	Approach Roads		6	10.00	9.00		540.00		
						Total Qty	10407.50	12.72	1,32,38
18	Providing and laying bituminous concrete 40mm thick with hot mix plant, using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminous binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications.								
	KPWD S.R 2018-19	It. No.	21.78.12	Pg.No.	171				
	BC Overlay								
	Ch:00- 2001st Main Road (Park Surround Road)	Cum	1	200.00	8.00	0.04	64.00		
	Ch:200-600		1	400.00	8.00	0.04	128.00		
	Ch:600-800		1	200.00	7.50	0.04	60.00		
	Ch:800-1015 3rd Main Road		1	215.00	7.50	0.04	64.50		
	Ch: 00-230 2nd A main Road		1	230.00	8.50	0.04	78.20		
	Approach Roads		6	10.00	9.00	0.04	21.60		
						Total Qty	416.30	8699.42	36,21,568
19	Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications and as per directoins of the Engineer in charge of work.								
	KPWD S.R 2018-19	It. No.	48.3	Pg.No.	182				
	Edge lane								
	Road Both Side								
	Ch:00- 2001st Main Road (Park Surround Road)		1	2	200.00	0.15		60.00	
	Ch:200-600		1	2	400.00	0.15		120.00	
	Ch:600-800		1	2	200.00	0.15		60.00	

Sl. No	Description of Work	Unit	No		Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amoun In Rs.
	Ch:800-1015 3rd Main Road		1	2	215.00	0.15		64.50		
	Ch: 00-230 2nd A main Road		1	2	230.00	0.15		69.00		
	Road Centre									
	Ch:00- 2001st Main Road (Park Surround Road)	Sqm	1	1	100.00	0.10		10.00		
	Ch:200-600		1	1	200.00	0.10		20.00		
	Ch:600-800		1	1	100.00	0.10		10.00		
	Ch:800-1015 3rd Main Road		1	1	107.50	0.10		10.75		
	Ch: 00-230 2nd A main Road		1	1	115.00	0.10		11.50		
	Zebra Crossing									
	3rd Main Road		4	8	0.50	1.80		7.20		
	2nd A Main Road		2	9	0.50	1.80		7.65		
							Total Qty	450.60	454.74	2,04,90
20	KSRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 - DO III Dt 11.06.1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer.										
	KPWD S.R 2018-19	It. No.	24.41		Pg.No.	187				
	Road Both Side									
	Ch:00- 2001st Main Road (Park Surround Road)		40	2				80.00		
	Ch:200-600		80	2				160.00		
	Ch:600-800		40	2				80.00		
	Ch:800-1015 3rd Main Road		43	2				86.00		
	Ch: 00-230 2nd A main Road		46	2				92.00		
	Road Centre									
	Ch:00- 2001st Main Road (Park Surround Road)	Nos	40	1				40.00		
	Ch:200-600		80	1				80.00		
	Ch:600-800		40	1				40.00		
	Ch:800-1015 3rd Main Road		43	1				43.00		
	Ch: 00-230 2nd A main Road		46	1				46.00		
	Zebra Crossing									
	3rd Main Road		4	16				64.00		
	2nd A Main Road		2	17				34.00		
							Total Qty	845.00	357.22	3,01,850
21	Supply and fixing of Retro Reflective Single Arrow Road Name Signboard of size 1600mm x 900mm made out of retro reflective sheeting conforming to Type XI standards of ASTM D 4956 - 09 & as per IRC 67-2012 for full back ground of blue colour & white letters and fixed over 4 mm thick Aluminium Composite Material sheet having minimum 0.5 mm thick Aluminium skin on both sides with back side painted grey colour and fixed over back support frame SS angle of 15mm x 20mm x 1.2mm, supported by 38mm OD stainless steel pipe all round in 304 grade and 2 nos of vertical posts of 50 mm OD stainless steel pipe of 202 grade firmly fixed to the ground by means of properly designed foundation of size 450mm x 450mm x 600mm in 1:1.5:3 ratio cement concrete. The background shall be blue in color with letters and border in white, the item includes earthwork excavation, cost of all materials, loading, unloading, lead, lift, transportation etc., complete, as per direction of engineer incharge of work clause 6.9 of IRC 67-2012 for Type XI retro reflective sheeting from the sheeting manufacturer & a certified copy of test reports from an independent test laboratory conforming to clause 6.7 of IRC 67-2012 including outdoor weather exposure report for the retro reflective sheeting offered shall be submitted by the contractor for technical qualification in the tender.										
	KPWD S.R 2018-19	It. No.	24.59		Pg.No.	190				
		sqm	3		1.60		0.90	4.32		
							Total Qty	4.32	14094.82	60,889.6

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate in Rs.	Amount in Rs.
22	Direction and Place Identification Signs with size morethan 0.9 Size Board: Providing and erecting direction and place identification retro -reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing KPWD S.R 2018-19	It. No. 24.4.		Pg.No. 180					
		Nos	4		0.90		0.90	3.24		
							Total Qty	3.24	7557.80	24,48
								Total Constrution cost		83,01,96
								GST 12%		9,96,23
								Tender Premium 6%		4,98,11
								Design Report,Proof Checking & PMC Amount		2,00,00
								Sub Total		99,96,31
								Miscellaneous & Rounding Off		3,68
								Grand Total		1,00,00,00

Certificate:-

1. The workspot was inspected and work is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike Limits.
3. The rates adopted based on the PWD SR Bangalore Circle for year 2018-19
4. The provisions made in the estimate are necessary and essential.

SRI SAI CONSULTANTS BANGALORE-90

Consultant
For Sri Sai Consultants

Assistant Engineer
Ward-03
BBMP - Bangalore

Assistant Executive Engineer
Yelahanka sub Division
BBMP - Bangalore

Executive Engineer
Yelahanka Division
BBMP - Bangalore